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Annual Report 1991

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Carnegie Corporation of New York

Annual Report 1991

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Report of the President

The Family Crucible and Healthy Child Development

In the face of the world transformations of the late twentieth century and their profound effects on families, the basic challenges of human survival and adaptability are being called into question. How to participate in the society in ways that assure the well-being of one's family and one's self, how to cope with imminent dangers, how to make a living, how to integrate one's personal needs with those of a valued group, how to meet the developmental requirements of children and adolescents — these tasks were simpler long ago, when people lived in small, stable societies, with their largely homogenous values and imperceptibly slow technological and social changes. The family household was the main site for the production of necessities as well as for the upbringing of children — their acquisition of economically useful skills, their formal education. Typically, members of the extended family were nearby, able to help in monitoring and guiding the young and to respond supportively in times of stress. Together the nuclear and extended families created a powerful support system that enabled members to cope with adversity.

The transition from childhood to adulthood through most of human history was steady, gradual, and cumulative. Tasks from an early age bore some discernible resemblance to the responsibilities of adult life and increased in scope and complexity as the children grew older. By the time they completed the physical changes of adolescence, young people were largely familiar with what would be required of them and what their responsibilities would be as adults. With some confirmation by a rite of passage, they arrived rather crisply at a point of adult functioning, or nearly so. They became valued contributors to the family and community.

Our world today is very different from that of our ancestors. Stable, close-knit communities where people know each other well and maintain a strong ethic of mutual aid are less common than they were. Economic and social changes brought about by advances in science and technology have produced rapid dislocations, some of them inimical to the family. By and large, young people today have less experience caring for children than did any of their predecessors. Many start a new family without the knowledge, skills, or confidence to master the complex and enduring tasks of competent parenthood.

NOTE: The president's essay is a personal statement representing his own views. It does not necessarily reflect the foundation's policies. This essay is adapted from the author's book, Today's Children: Creating a Future for a Generation in Crisis. *New York: Times Books, Random House, 1992.*

Modern developments have indeed provided immense opportunities and tangible benefits, but they are also confronting many children and their parents with unprecedented demands and stresses. For children, learning and social tasks are more complex, development is more prolonged, and long-term outcomes are more problematic than they were even a generation ago. There is less continuity between the behavior learned in childhood and youth and the tasks of adulthood than there was before. In a time when entire industries have virtually disappeared, the economic opportunities of adulthood are obscure to most adolescents. For parents and other caretakers, the struggle to manage their responsibilities to children, self, and society is more difficult. More women are raising their young alone, without social supports, and are in the work force, often having to leave their infants in the care of others. Families generally are facing great economic uncertainty and insecurity.

During the past several years, my concerns about children and adolescents have deepened. The more I have looked into their situation, the more worried I have become. What is going on? Isn't this one of the most affluent countries ever? Aren't most children growing up healthy and fine? Don't they usually emerge intact from their early "growing pains"? Yes and no. While it is true that many turn out well, with or without great difficulty in mid-passage, it is also true that substantial numbers are experiencing a formidable array of preventable burdens of ignorance, illness, suffering, failure, humiliation, and lost opportunities. Evidence indicates that about one adolescent in four is in serious trouble from teenage pregnancy, drug use, school dropout, and depression, sometimes leading to suicide. We lag well behind other advanced democracies in reducing infant mortality. Various measures of educational achievement reveal that our children badly fail to meet the standards of other technically advanced nations.

While adequate income and high social status provide no guarantees of healthy development, almost every form of childhood damage is far more prevalent among the poor — from increased infant mortality, gross malnutrition, recurrent and untreated health problems, and child abuse in the early years to educational disability, low achievement, delinquency, early pregnancy, alcohol and drug abuse, and failure to become economically self-sufficient later on. In short, a variety of indices show that children are suffering heavy casualties during the years of growth and development, and these casualties are not only tragic for them and their families but incur heavy costs for American society.

The role of the family as the fundamental unit responsible for the health, education, and general well-being of children is crucial. Whatever has happened to it, it is still the central organizing principle of society. But families do not function in isolation. They need an appropriate social environment to be successful. This means a supportive social network, the ability to make a living, a firm sense of community and belonging. In one way or another all families need help today, and disadvantaged families desperately so. Families differ greatly in their material resources and in their cultural traditions. Most are resilient in the face of adversity. But unless basic family needs are met, their children — our children — are at risk.

The evolution of the modern family and its rapid transformation has left us largely unprepared for the challenges of raising a child today. Children are in crisis

because families are in crisis. How can we save our children? How can we build a decent future for them? Most parents are deeply committed to finding ways of raising their children successfully in this hyper-modern world. How can we provide them a supportive environment throughout the vulnerable period of child rearing?

With all the radical shifts in family life, it is necessary to find ways to strengthen families where they are now vulnerable and to use other institutions to provide some of the necessary conditions for healthy child development. Is this feasible? The United States is a very large, highly heterogeneous, and strongly individualistic country. These are all potent assets, but they also engender the distrust and impersonality that have complicated our capacity to reach widely acceptable decisions about social policy. So as we struggle for consensus about coping with the problems of today's children, our first and crucial step must be to reach broad agreement on the nature and scope of the problems. What are some of the main risk factors that make modern children vulnerable to becoming casualties of the contemporary age? What are the pressures on the family — the most elemental crucible for child development?

THE AMERICAN FAMILY TRANSFORMED

The dramatic changes in the structure and function of American families can be highlighted by comparing 1960 with 1990. Until 1960 most Americans shared a common set of beliefs about family life. Family should consist of a husband and wife living together with their children. The father should be the head of the family, should earn the family's income and give his name to his wife and children. The mother's main tasks were to support and facilitate her husband, guide her children's development, look after the home, and set a moral tone for the family. Marriage was an enduring obligation for better or worse. The husband and wife had the joint task of coping with stresses, including those of the child's development; and sexual activity should be kept within the marriage, especially for women. Furthermore, parents had an overriding responsibility for the well-being of their children during the early years; until their children entered school, they had almost sole responsibility and even later had primary duties including guidance of their children's education and discipline. Of course, even in 1960, families recognized the difficulty of converting these ideals into reality. Still, they devoted an immense amount of effort to approximating them in practice.

Over the past three decades these ideals, although they are still recognizable, have been drastically modified across all social classes. Women have joined the paid labor force in great numbers, stimulated both by economic need and a new belief in their capabilities and right to pursue opportunities. Americans in 1992 are far more likely than in earlier times to postpone marriage. Single-parent families — typically consisting of a mother with no adult male and very often no other adult person present — have become common. Today at least half of all marriages end in divorce. The great majority of adults no longer believe that couples should stay married because divorce might harm their children.

Survey research shows a great decrease in the proportion of women favoring large families, an upsurge in their assertiveness about meeting personal needs,

and an attempt by women to balance their needs with those of their children and the men in their lives. A clear and increasing majority of women believe that both husband and wife should be able to work, should have roughly similar opportunities, and should share household responsibilities and the tasks of child rearing. An absolute majority of mothers of preschool children are now working outside the home. Moreover, there is a growing minority of young married women, often highly educated and career oriented, who are choosing not to have any children and who have little interest in children's issues — yet another indication of the dramatic transformation of American families taking place in recent decades.

While the birthrate of adult women has declined since 1970, that of American adolescents, especially girls under age fifteen, is among the highest in the technically advanced nations. Teenagers account for two-thirds of all out-of-wedlock births. There are 1.3 million children now living with teenage mothers, about half of them married. An additional six million children under age five are living with mothers who were adolescents when they gave birth.

Throughout most of human history, adolescent childbearing was common. But societies in those vanished times provided relatively stable employment and predictable networks of social support and cultural guidance for the young parents. For such adolescents to set up a household apart from either family was rare in pre-industrial societies. Even more rare was the single-parent family. Rarest of all was a socially isolated, very young mother largely lacking an effective network of social support. Today these conditions are prevalent.

It is startling to realize that today, whether through their parents' divorce or never having married, most American children spend part of their childhood in a single-parent family. The increase in the proportion of children living with just one parent (usually the mother) has strongly affected very large numbers of white, black, and Hispanic children. Female-headed families with children are much more likely to be poor than are married-couple families with children, regardless of race. By conservative estimates, one-fifth of young American children are raised in poverty, many by their mothers alone. Black families with children are more likely to be poor than are white families with children, regardless of family type.

By the time they reach age sixteen, close to half the children of married parents will have seen their parents divorce. For nearly half of these, it will be five years or more before their mothers remarry. Close to half of all white children whose parents remarry will see the second marriage dissolve during their adolescence. Black women not only marry less often and experience more marital disruption but also remarry more slowly and less often than do white women. Generally, as compared with other countries, the United States exhibits a pattern of attachments and disruptions in marriage that is certainly stressful for developing children and adolescents.

Divorce and remarriage bring a complex set of new relationships, resulting in many different family configurations. About two-thirds of the children in stepfamilies will have full siblings plus either half- or step-siblings. Many children will have multiple sets of grandparents. On the other hand, children of single mothers or mothers who do not remarry will have a more restricted set of active family relationships than children with two parents.

Especially in the United States, but in many other nations, too, mothers of children under three years of age are the fastest-growing segment of the labor market, so child care arrangements at the preschool level are of enormous practical significance. Even though remarriage after a divorce is common, there are still complicated problems of handling child care responsibilities in blended families. For parents who have never been married, the strain is probably greatest. They have all the responsibility as head of household and the least help available. About two-thirds of single mothers whose children are at the preschool level are employed, most of them full time. No matter how poor they may be, they must find some kind of arrangement for care of their very young children. More often than not, this means a child care center or other home that can take them in.

Child care functions are thus increasingly moving outside the home, with children's development often placed in the hands of strangers and near-strangers. As late as 1985 only 14 percent of preschool children were cared for in an organized child care facility. That figure has doubled in the last five years. By 1990 half the number of children of working parents were either being cared for in a center or in another home. In 1985, 25 percent of working mothers with children under five used a child care facility as their primary form of care, compared with 13 percent in 1977. In the main, this transformation was unforeseen, unplanned, and is still poorly understood.

With such a very rapid, far-reaching set of social changes, it is not surprising that public opinion surveys find many American parents deeply troubled about raising their children, and two-thirds say they are less willing to make sacrifices for their young than their parents were. Neither they nor the nation's social institutions have had much time to adjust to the new conditions.

HOW ARE TODAY'S PARENTS COPING?

Young people moving toward parenthood today face more rapidly changing circumstances and a wider spectrum of life choices than ever before. But choices and decisions and transitions can be burdens, even as they offer attractive opportunities and privileges. Young couples today often agonize over decisions taken for granted as recently as a generation ago. Should they get married? If yes, should they wait until one or both have a steady job? What about the fateful decision to have children?

Once married, it is very likely that both husband and wife will be in the paid labor force, and with the advent of the baby, they will have to renegotiate their relationship. How will they divide up the baby-care chores? What sort of parental leaves, if any, will either take? How will they handle the housework? How can they balance work and family life? If the mother takes off from work for a while, when is it sensible to go back, and how can she make the transition in the best interests of the child? Can they afford quality child care? If not, what alternatives are there?

Some studies have been done on the efforts of parents to balance their various interests and responsibilities in new ways. The results show that this is a complicated process that is in its earliest stages. University of California sociologist Arlie

Hochschild, coauthor of *The Second Shift: Working Parents and the Revolution at Home,*[1] has conducted systematic research that illuminates the tension between work and family. She describes the tremendous penalty women pay whether they choose to concentrate on working at home or to have a paid job. The housewife pays the cost of remaining outside what is today the mainstream of society; the working woman pays the cost in the drain of time and energy for family commitments.

The evidence clearly indicates that men are sharing very little of the burden of raising children and care of the home with their wives. Hence, as Hochschild points out, women are coming home from a paid job to work "a second shift." Most men devote long hours to their jobs. Even if they want to be helpful at home, their institutional settings usually do not make it easy for them to do so.

There is no reason to believe that this phenomenon of the two-parent working family is a transient one. Indeed, a variety of economic and psychological factors reinforce the persistence of the pattern as a financial necessity. For one thing, the actual and proportionate costs of child raising today are much higher than they were in the 1950s and 1960s. In many families, both husband and wife must have earned income if the family is to attain or maintain a middle-class standard of living. This is now a great deal harder than it used to be. In the past few decades the shift from a manufacturing to a service-based economy has brought a decline in wages for many people. The industries that have declined in the United States in relation to foreign competition are precisely the ones that historically provided relatively high-earning positions for men, especially those who did not go on to higher education. On the other hand, the new growth in the American economy has been mainly in the sectors that are major employers of women, where the pay is less. One effect of this is that parents have a great deal less leisure time than they used to — not enough time, perhaps for their children.

THE NEW REALITIES FOR CHILDREN

For all the attractive features of technological progress and economic success, the recent changes have served to attenuate human relationships in the family. Concerns have grown about the effects of changing family patterns — single-parent families as well as working mothers and remote fathers — on their availability for intimate, sensitive parenting of young children. The change in the frequency and quality of contact between children and their adult relatives is remarkable. Not only are mothers home much less, but, as mentioned, there is little if any evidence that fathers are spending more time at home to compensate. Only about 5 percent of American children see a grandparent regularly, a much lower level than in the past. Children spend a huge chunk of time during their years of most rapid growth and development in out-of-home settings or looking after themselves, which often means gazing at the mixture of reality and fantasy presented by television. Adolescents increasingly drift into a separate "teen culture" that is often lacking in adult

[1] Hochschild, A., and Machung, A. *The Second Shift: Working Parents and the Revolution at Home*. New York: Viking, 1989.

leadership, mentorship, and support — and is sometimes manifested in violence-prone gangs.

Such attenuation in family relationships is most vividly reflected in rising indicators of adverse outcomes for infants, children, and adolescents. Over the past several decades, the largely unrecognized tragedy of moderately severe child neglect has been accompanied by more visible, flagrant child neglect. This is most obvious in the growing number of adolescents — even pre-teens — having babies and then walking away from them. Young adolescent mothers are often less responsive to the needs of the infant than older mothers are. They also tend to have more babies in rapid succession than older mothers, placing their infants at greater biological and behavioral risk. Children of adolescent mothers tend to have more cognitive, emotional, behavioral, and health problems at all stages of development than do children of fully adult mothers.

But insidious problems have arisen in a much wider portion of the society. Not only are more children growing up in poverty than was the case a decade or two ago, but they are increasingly mired in persistent, intractable poverty with no tangible hope of escape. They are profoundly lacking in constructively oriented social support networks to promote their education and health. They have very few models of competence. They are bereft of visible economic opportunity. The fate of these young people is not merely a tragedy for them but affects the entire nation. A growing fraction of our potential work force consists of seriously disadvantaged people who will have little if any prospect of acquiring the necessary skills to revitalize the economy. If we cannot bring ourselves to feel compassion for these young people on a personal level, we must at least recognize that our economy and our society will suffer along with them.

As society puts a greater emphasis on options, freedom, and new horizons — an accentuation of the longstanding American emphasis on individuality — its side effects have clearly contributed to the sharp increase in the divorce rate, which turns out to have more adverse consequences for child development than most of us had expected. The conventional wisdom on this issue, which I once shared, was that if the parents handled the situation well with sensitivity for their children, the effects of divorce on the children would be minimal. And this certainly can be the case. But practically speaking, divorcing couples find it exceedingly difficult to handle such situations well enough over a long enough period of time to protect their children from the harsh psychological and economic fallout of divorce.

Various studies of divorcing families reveal recurrent themes. Marital separation commonly involves major emotional distress for children and disruption in the parent-child relationship. Single parents, try as they will, tend to diminish parenting for several years after the break-up. Improvement occurs gradually and is enhanced by the formation of a close, dependable new relationship. Over the years, the non-custodial parent's involvement with the child tends to fade. The effects of marital disruption vary with the child's age. Children aged six to eight react with grief, fear, and intense longing for reconciliation. Children aged nine to twelve tend to be openly angry. They are inclined to reject a stepparent. At both ages, the children's behavior often deteriorates at home and at school. The tranquil passage through middle childhood is altogether disrupted by drastic family changes.

The economic impact of divorce on children is often profound. Most children of divorce end up living with their mother. Since women do not earn as much as men on average, and absent parents frequently fail to provide child support, children growing up in single-parent families headed by women are likely to fall into poverty. In one study of divorces during the 1970s, poverty rates for children rose from 12 percent before divorce to 27 percent after divorce. The 1987 poverty rate among female-headed families with children was 46 percent, compared with 8 percent among married-couple families.

In addition to having fewer financial resources, single parents may be less able to supervise their adolescent children. There is evidence that an adolescent living in a single-parent family and having little parental supervision is susceptible to delinquent behavior and substance abuse. Of course, some single parents do in fact maintain adequate supervision and overcome many difficulties, but on the average the situation is not conducive to successful child rearing.

In contrasting today's vast, complex societies with the small, simpler societies of our ancestors — or even contrasting 1990 with 1960 — it should be clear that there is no point in indulging in nostalgic yearning for the good old days. History has had plenty of dark sides — immense human vulnerability to diseases, hatred, violence, and ignorance of many kinds. In any event, we cannot turn the clock back and there are many reasons why we would not want to do so. But the recent transformations are challenging families and other institutions as never before to adapt to the new world we have so quickly made.

NEEDED ELEMENTS OF FAMILY SUPPORT

During the past three decades, as all these remarkable changes increasingly jeopardized healthy child development, the nation took little notice. Until the past few years, political, business, and professional leaders had very little to say about the problems of children and youth. Presidents tended to pass the responsibility to the states and the private sector. State leaders often passed the responsibility back to the federal government or to the cities. One arcane but important manifestation of this neglect has been the low priority given to research and science policy for this field. As a result, the nature of this new generation of problems has been poorly understood, emerging trends have been insufficiently recognized, authority has tended to substitute for evidence and ideology for analysis.

All this is beginning to change now. While the government has thus far provided little encouragement or incentive for employers to help parents balance their work and family responsibilities, the debate is growing among decision makers over which measures can strengthen today's families — family leave for new mothers and fathers, job sharing, part-time work, flexible schedules, and the like. Within the scientific and professional communities, a remarkable degree of consensus is emerging concerning the conditions that influence child and adolescent development and how parents can cope with the changes within themselves and in the world that swirls around them. Much has become known about ways to prevent the damage being done to children.

Moreover, there has been an upsurge of programs in community organizations, churches, schools, and youth-serving organizations providing child care, support, and guidance for parents and their young. Successful interventions have taken many forms, including home-visiting services, parent-child centers, child and family resource programs, school-based and school-linked services, life-skills training, mentoring, self-help programs, and other supports. A number of exemplary programs in individual cities across the United States have achieved remarkable results. Despite their different approaches, they share a single key element: they have all found ways to compensate for a damaging social environment by providing conditions that can build on the strengths and resiliency of those caught in difficult circumstances.

Sadly enough, the emerging consensus and the positive results of some tried interventions are not widely understood by the general public or, for that matter, by many policymakers in public and private sectors. It is crucial now to have a well-informed, wide-ranging public discussion and to link experts with open-minded policymakers in an ongoing process of formulating constructive policy options. No single approach to families and children can be a panacea; many approaches are needed to span the main years of growth and development during early childhood, continuing through middle childhood and adolescence. But social neglect is no answer to the crisis our families face.

During their years of growth and development, children need dependable attachment, protection, guidance, stimulation, nurturance, and ways of coping with adversity. Infants, in particular, need caregivers who can promote attachment and thereby form the fundamental basis for decent human relationships throughout the child's life. Similarly, early adolescents need to connect with people who can facilitate their momentous transition to adulthood gradually, with sensitivity and understanding. Usually, despite the radical transformations of recent times, such people are within the child's immediate family; if not, they exist to some extent in the extended family. But if these caregivers cannot give a child what he or she needs to thrive, we must make an explicit effort to connect children with persons outside the family who have the right attributes and skills and also the durability to promote their healthy development.

Below, I try to sketch a few approaches, based on the latest research, that provide a genuine basis of hope, even on the toughest problems. Most of them center on early interventions that offer support similar to that of the traditional family. They follow a developmental sequence from prenatal care to preventive pediatric care to child care, from parent education to social supports to life skills training for young families and adolescents. Such interventions, if they were offered more widely, could prevent much of the damage being done. Action on more promising lines of inquiry and innovation could diminish the casualties still further in the decades ahead. How can we stimulate, facilitate, and accelerate the pace of this vital work?

Enriched prenatal care

The most fundamental point of entry for interventions that could be helpful to families with children in the crucially formative first few years of life is early

prenatal care — for both parents. The essential components of prenatal care are medical care, health education, and social support services. Good prenatal care dramatically improves the chances that a woman will bear a healthy baby. Mothers who do not have access to it suffer higher rates of infant mortality or may give birth to premature or low-birthweight babies. Yet prenatal care is now weak or absent for about one-quarter of mothers in the United States.

We can prevent nutritional deficiencies by educating expectant mothers and providing them with nutritional supplementation and primary health care. This integrated approach has been demonstrated to work well in the federal Women, Infants, and Children Food Supplementation Program. Through prenatal care, pregnant women can also be informed and provided necessary support and skills to help them stop smoking, minimize alcohol consumption, and avoid drugs if they are to have a healthy baby. The educational component of prenatal care can be expanded beyond pregnancy to include a constructive examination of options for the life course. That thrust can lead to job training, formal schooling, or other education likely to improve prospects for the future of the mother and her new family.

A major facilitating factor is the ready availability of a dependable person who can provide social support for health and education through the months of pregnancy and beyond. In one intriguing set of innovations, pregnant girls are connected with "resource mothers." These are women living in the same neighborhood as the adolescent mother. They have assimilated life experience in a constructive way, have successfully raised their own children, and have learned a lot that can be useful regarding life skills most relevant for the young mother. They convey what they have learned about the problems facing the young mother and in general provide sympathetic, sustained attention as well as gateways to community resources. Such examples highlight the crucial value of social support for health and education throughout childhood and adolescence.

It is vital that national, state, and local policymakers recognize the importance of prenatal care for all women. They need to understand that it will be much less expensive to society in the long run than is medical care for low-birthweight and otherwise unhealthy babies, particularly those born to poor women. The intervention helps two generations at once — and indeed can have lifelong significance not only for the children but for their young parents.

Preventive care in the first few years

Well-baby care oriented to preventing lifelong damage is vital not only for child health but for building parental competence. Immediately after delivery, the pediatrician assesses the newborn's health and informs the parents. In addition to providing immunizations during infancy, pediatricians also monitor children's growth carefully to detect nutritional problems — and treat infectious diseases. Pediatricians nowadays provide well-informed guidance and emotional support to help families attain healthy lifestyles. They foster attachment between mother and baby and help prepare her for coping with unpredictably difficult episodes with her infant. They answer parents' questions and anticipate questions about growth

and development. They provide other vital services — for example, early treatment of ear infections and correction of vision deficits so that hearing and visual impairments do not interfere with learning.

As the infant becomes a toddler, the pediatrician or other primary care provider, in addition to assessing the child's health and growth, can check the child for injuries or signs of neglect and abuse. They can help guide parents in providing safe play areas, dealing with difficult behavior, and easing the child's transition to out-of-home care and preschool. Since pediatricians are often in short supply, particularly in poor city neighborhoods and remote rural areas, it is essential to enlist the aid of pediatric nurse practitioners, home visitors, parent support groups, and primary prevention program directors in extending their reach. Neighborhood health centers have proved to be effective in reaching low-income children with preventive services, but they are not widespread.

More policymakers are seeing the wisdom of such preventive care for children, but greater progress has to be made on the most critical fronts: immunization, low birthweight, child abuse, and health education.

Dealing with child injuries

Still not widely understood is that the major health hazards for American children no longer stem from disease but from injuries — both accidental or unintentional and intentional. Injuries account for half of all deaths of children and are an increasing source of long-term disability and serious health problems for children and adolescents. Intentional injury and neglect — child abuse — is a very unpleasant subject, but it is slowly being faced as a national problem. Abused children are likely to suffer severe psychological and sexual problems later in life, all too commonly perpetuating this violent behavior toward their own children. The risk of child mistreatment is increased when parents endure a high level of stress, such as unemployment, and are socially isolated.

Despite the limited amount of research in this area, preventive efforts have been launched, aimed mainly at preventing repeated abuse in families rather than preventing the first incident. These interventions include parent education about child development and parenting behavior, counseling, parent self-help support groups, crisis centers and protective day care, home visitor programs, and programs to promote stronger early attachment between mother and infant. Such preventive efforts are a good deal less costly than paying for problems of seriously neglected and abused children later on. They deserve vigorous exploration and research.

Child care

As child rearing moves beyond the home, the quality of custodial care becomes crucial. The vast majority of responsible parents are eager to ensure that the care their children get will facilitate their healthy development. Just as they want a competent doctor to foster their children's health, so, too, they want a capable caregiver. Yet, the more I have probed into the issue, the more I have become

impressed with how difficult it is to meet this need. There is little precedent for outside-the-home care on such a vast scale as is now emerging in the United States. The crucial factor in quality of care is the nature and behavior of the caregiver. As the demand for child caregivers has surged, those trying to provide it have frantically sought to recruit more child care workers. Even with the best of intentions, this field has been characterized by low pay, low respect, minimal training, minimal supervision, and extremely variable quality. Although most child care workers try very hard to do a decent job, the plain fact is that many of them do not stay with any one group of children very long. This in itself puts a child's development in jeopardy; it is especially damaging for young children, for whom long-term caretaking relationships are crucial.

At present most professionals recommend that parents defer day care beyond infancy if possible. But as a practical matter, in the absence of policies for paid maternity leave, the trend seems to be increasing toward day care for infants. Many clinicians and researchers are working to develop effective models and standards of dependable day care that will promote normal, vigorous child development. At present the issue of what constitutes high-quality care and how it can be accomplished in practice is still unresolved. We can learn some lessons from other nations that have addressed this problem seriously. We need a better sense of ways in which policies of powerful institutions might help to fulfill the potential of this extraordinary movement. While there is an emerging consensus on what can be achieved, we do not yet know how to respond to this great challenge.

One of the most important findings from research is that children who have benefited most from being placed in child care centers are those who come from relatively poor families. Perhaps the rich experiences at the center provided such children special opportunities that they might have missed at home. Can we extract the essential ingredients and heighten the efficiency of these good effects, so that they may become standard practice?

High-quality child care and preschool education in the mode of Head Start has proven valuable for children age four and now is being offered to those age three. Overall, individuals who have been in good early education programs have better achievement scores in elementary school, are less likely to be classified as needing special education, have higher rates of high school completion and college attendance, and lower pregnancy and crime rates than comparable students who were not in preschool programs. The lessons of Head Start have wide applicability. Such valuable early stimulation, encouragement, instruction, and health care provided in quality preschool programs (all with substantial family involvement) can be incorporated into a variety of child care settings.

Early education should not be seen as a one-time event akin to immunization but as an important component of a constructive series of developmental experiences throughout childhood and adolescence.

Building parental competence

One of the most important and recurring themes in the research on early intervention is the potential value of teaching young parents to deal with their own children

effectively. Ideally, such education should begin before the baby is born. Thus, as indicated, a good prenatal care regimen would involve not only obstetrical, nutritional, and other measures designed to protect mother and infant throughout pregnancy, labor, and delivery but also some basic preparation for both parents regarding their tasks as parents and their own life course; in the case of poor parents at least, this would include connection with opportunities to develop occupational skills.

Because the first few years of a child's life are a critical period of his or her development physically, emotionally, and psychologically, the family's capacity to nurture — or its failure to do so — has the most profound effect on a child's growth. Research findings strongly support the centrality of a loving, dependable relationship for a good start in life. This does not mean that only one person matters to that child or that the biological mother must be that person. Certainly, a baby can form secure attachments with other caregivers and with siblings. Nevertheless, the research evidence indicates the great importance of one central caregiver who creates a sustaining, loving relationship with the infant. Expectant or new mothers or other adults in the consistent caregiving role can be taught effective parenting techniques including those that foster attachment.

As their children grow, parents can be helped by programs that promote verbal interactions among family members and the verbal responsiveness of adults to children. Numerous studies confirm that the mother's responsiveness strengthens her child's learning and sense of self-sufficiency and thereby opens doors to development that would otherwise be closed. Parents can also be helped to understand that there is an optimal range for the intensity and variety of stimulation for a child's healthy development. The great challenge is to devise on a broader scale family-centered interventions that will enhance children's cognitive development and emotional resiliency despite the problems of chronic poverty and relative social isolation.

As parent education programs spread, it is essential to avoid the extremes of dogmatism on the one hand and vague, wishful, uninformative approaches on the other. We have to look to the scientific and scholarly community as well as experienced practitioners in relevant fields to devise a standard of reference for prospective and actual parents to use.

Social supports

Studies in a variety of contexts show that social supports for families (that are eroded, disintegrated, or otherwise weakened under circumstances of persistent poverty and social depreciation) can buffer the effects of stressful life transitions for both parents and children. We can no longer take for granted the supportive systems that were built into human experience over millions of years. Even the most successful, capable parents cannot teach their children the wide array of skills needed for today's complicated, rapidly changing society. Increasingly, we must consider crucial skills for education and health that have a strong bearing on survival and the quality of life in contemporary American society — one of the biggest, most complicated, rapidly changing societies that has ever existed.

Institutions and organizations beyond the family can provide the necessary social support, strengthening the family and/or offering surrogates for parents, older siblings, or an extended family. Examples of such interventions are in communities across the country, in churches, schools, agencies, and minority-run organizations. They build constructive networks for families that serve parents and attract youngsters in ways that foster their health, their education, and their capacity to be accepted rather than rejected by the mainstream society.

Whereas parent education efforts have historically focused on the child, family support efforts view the entire family as one unit. Their goals are to augment parents' knowledge of and skill in child rearing, to enhance their skills in coping with the child and other family matters, to help families gain access to services and community resources, to facilitate the development of informal support networks among parents, and to organize to counteract dangerous trends in the community. Most of these programs are served by paraprofessionals who are members of the community, although professionals are involved.

Social supports for adolescent mothers are particularly vital, especially for those who are poor and socially isolated. Effective programs not only teach parenting skills and ensure the provision of needed services in health and education, they help mothers stay in school and acquire skills for gainful employment. Evaluations of some interventions show that young mothers improve their diets, smoke less, and generally take better care of themselves and their babies than those who do not have such services; they also have fewer children.

Support to families with adolescents

Compared to families with young children, families with adolescents have been neglected. Even for the affluent sector, little work has been done on strengthening support networks for families during the stresses of the great transition from childhood to adulthood. Still less attention has gone into strengthening networks for families who live in poverty or culturally different situations.

Although adolescents are moving toward independence, they are still intimately bound up with the family, which is typically much more important to them than is evident. This is especially true during early adolescence. For that reason, we need to pay substantial attention to the ways in which family relationships can be utilized to help adolescents weather the radically transformed conditions of contemporary life. This is a difficult time for parents, too. Their own marital relationships, their own coping skills, are often in transition. They may need help in renegotiating family relationships at this time.

Professor Stephen Small for the Carnegie Council on Adolescent Development has identified forty-one programs that are making serious efforts to strengthen families' capacity to tackle the problems associated with adolescent development. Most of these programs center around curricula developed for this purpose and made available for use by local organizations. Some of the more promising ones Small identified are initiated and maintained by voluntary youth-serving organizations such as the Boys Clubs of America, the 4-H Clubs, and the Parent-Teacher Association. One of Small's strongest recommendations is to give parents a way

to obtain social support from other parents — sharing experience, pooling information and coping strategies. A mutual-aid ethic among parents who have a common concern for the well-being of their developing adolescents and yet who bring diverse experiences in the encounter can be helpful.

Life skills training

Adolescents have to navigate through a mine field of risks to their healthy education and development. They need attention from adults who can be positive role models, mentors, and sources of accurate information on important topics. They need to understand the biological changes of puberty and the immediate and long-term health consequences of lifestyle choices. They need to learn interpersonal and communication skills, self regulation, decision making, and problem solving.

Today there are few guidelines for behavior available to children or even to the adults around them. Many of the messages they receive are conflicting or ambiguous. Clearly, our adolescents need life skills training — the formal teaching of requisite skills for surviving, living with others, and succeeding in a complex society.

Formal education can provide or at least supplement the life skills training that historically was built into the informal processes of family and kin relationships. Successful school programs are typically administered by agencies outside of the schools; many use some variant of social skills training and use peers in their interventions. Across the nation, most communities have programs outside the schools that offer youngsters recreation or teach them skills. Youth agencies, such as Girls, Inc., serve about 25 million young people annually and thus are in regular contact with almost as many children as are the schools. They aim to help teens acquire social skills, develop a constructive personal identity, and build a dependable basis for earned respect. Their strengths are that they are free to experiment, they reach children early, and they typically work in small groups with ten to fifteen young people at a time. Effective programs tend to respond to more than one serious problem or risk factor and try to create incentives for dealing with them that adolescents perceive as relevant to their own lives.

Based on the lessons of experience with all such approaches that work for families and children, it should be possible in the foreseeable future to design interventions that go beyond what has been possible up to now. First, we can use our experience from the programs so far undertaken, ascertain which are the most effective and which need the most attention, and construct informed models for future interventions. With so much at stake — terrible suffering, grievous loss of talent and life — we can surely find ways to make these programs available on a much wider scale.

STRENGTHENING DISADVANTAGED FAMILIES

Democratic societies are being challenged as never before to give all our children, regardless of social background, a good opportunity to participate in the modern technical world. This means, among other tasks, preparing them to qualify for

modern employment opportunities; to achieve at least a decent minimum of literacy in science and technology as part of everyone's educational heritage; to make lifelong learning a reality so that people can adjust their knowledge and skills to technical change; and to foster a scientific attitude useful both in problem solving throughout society and in understanding scientific aspects of the major issues on which an informed citizenry must decide. Any modern nation needs to develop the talents of all its people if it is to be economically vigorous and socially cohesive in the different world of the next century.

Not only the family but the world of work is being rapidly transformed by science and technology. One upshot is that work will require much technical competence and a great deal of flexibility. Each of us will need not just one set of skills for a lifetime, but an adaptability to an evolving body of knowledge and new opportunities calling for greatly modified skills in the years beyond formal schooling. The work force will have to be more skillful and adaptable than it is now — at every level from the factory floor to top management.

Traditionally, America's technologically educated work force, which has by and large been very efficient by world standards, has come from a small fraction of the white, male, college-educated population. We have skimmed the cream of a very preferred, fortunate group, while blacks, Hispanics, American Indians, and even women have historically been badly underrepresented in the fields that require technical competence. Now, however, the traditional white male source of scientists and engineers is inadequate, even if we were not interested in rectifying historical injustices, at the very time that more technically trained people are needed. This brings the country to a very interesting point, a point where equity intersects with economic vitality, democratic civility, and military security. Because of this intersection, there are now broader and more urgent reasons than ever before to support an unprecedented effort in the education of disadvantaged minority children. What must motivate us is not only decency but also national interest.

In the years immediately ahead, the number of young people in the United States will be smaller than in recent decades. Fewer young people will enter the work force. By the year 2000, about one-third of these young people will be black or Hispanic, the groups now at the bottom of the educational and economic ladder. Already, in the 1990s, racial and ethnic minorities constitute the majority of primary and secondary school students in twenty-three of the twenty-five largest American cities. In eight more years, they will be the majority of the populations of fifty-three major cities.

While the lives of individual members of minority groups have greatly improved since the 1960s, many of the millions remaining in the inner cities have been relegated to marginal status in our society. They are the poorest and least-educated Americans and are served by the least-adequate health care in the nation. As in past generations, those who can escape severely damaged environments do so, leaving behind those who have come of age on the streets, without stable adult models and constructive support systems and often without parents. For the majority of American schoolchildren to be excluded from the mainstream of education and worthwhile jobs in the next century would be a personal loss for the individuals

themselves and a tragic waste of human resources that will weaken the country's economic and social foundations. Increasingly, this injustice threatens our democratic foundations — and our economic vitality as well. In the United States, it is in the straightforward national interest that minority students be educated equally with majority students, particularly in the science-based fields. The country can no longer endure the drainage of talent that has been the norm up to now.

For these reasons, the entire sequence of developmentally useful interventions sketched in this essay must be applied in a concerted way to poor and disadvantaged communities. There is much that can be achieved if we think of our entire population as a very large extended family — tied by history to a shared destiny and therefore requiring a strong ethic of mutual aid.

WEIGHING THE COSTS

The biology of our species makes necessary a huge parental investment in order to achieve the fulfillment of each child's potential. This means far more than an economic investment. It is a continuing, relentless, recurrent demand for investment of time, energy, thought, consideration, and sensitivity. It is an investment in patience, understanding, and coping. It requires persistence, determination, commitment, and resiliency. The awareness of such a large investment, however vaguely formulated, has recently inhibited many young people from undertaking child rearing, now that the choice is readily available to them. Others have gone ahead and started families, only to find they are unprepared for the challenge. If they cannot or will not give their children what they need, then others must do so. But who? In general, parents have responded that they are willing to do a good deal of what is necessary but cannot do all of it. Therefore, we have seen the rise of institutions that provide parent-equivalent functions. We are in mid-passage in this process; no one can say with justifiable confidence what the consequences will be for the generation of children in crisis.

In almost all cases, the expenditures required for optimal child and adolescent development are not simply add-ons but can be at least partly achieved by wiser use of existing funds. Huge amounts are already spent for these purposes. Much of this current spending could be greatly improved and redirected by some of the measures suggested here. To replace inadequate interventions would in some cases cost less and in other cases cost more than we are now spending. This sort of analysis must largely be done on a case-by-case, place-by-place basis. What is likely is that the total economic and social costs of present child-relevant activities could be greatly reduced.

For the atrocities now being committed on our children — however inadvertently and regretfully — we are all paying a great deal. These costs have many facets: economic inefficiency, loss of productivity, lack of skill, high health care costs, growing prison costs, and a badly ripped social fabric. One way or another, we pay. I have tried to suggest lines of caring for our children, including parental support programs, that would lead to better results on our investment in the future that we all share. It is intended to stimulate serious reflection on such matters and

to move us toward taking up these crucial responsibilities. These vital investments have to be viewed for what they are — a responsibility not only of the family but of the entire society. It is not just the federal government but other levels of government; not just business but labor; not just light-skinned people but dark-skinned as well; not just the rich but the middle class and the poor. We are all in this huge leaking boat together. We will all have to pay and reason and care and work together. Our usual short-term view will not suffice. There are many useful, constructive steps to be taken but no quick fix, no magic bullet, no easy way. We will not get rich quick on the backs of our children.

We have to move beyond the easy and pervasive recourse of passing the buck. It is our responsibility — each individual, each institution and organization, every business, all levels of government. We cannot lose sight of the fact that wise investment in human capital is the most fundamental and productive investment any society can make. Constructive development of our children is more important than oil or minerals, office buildings or factories, roads or weapons. The central fact is that all of these and much more depend in the long run on the quality of human resources and the decency of human relations. If these deteriorate, all else declines.

A FINAL WORD

The interventions in health and the social environment for families and children I have summarized have a lot to do with the kind of future we will have. Sadly, very few complete models of modern programs to meet children's needs are available. Major components of such programs do exist all across the country and in other nations as well. Increasingly, we will have to put these components together in ways that provide our children with the full range of developmental opportunities permitted by today's knowledge and emerging research findings. We will need to hammer out some broad guidelines for the division of labor in each major sphere — from prenatal care to graduate education. We badly need to strengthen research on social change, including institutional as well as individual responses. Research on parent-equivalent functions and careful observation of leading-edge innovations can help us decide which models actually work for what purpose in fostering children's healthy growth and development — and at what cost. Some of this knowledge is already available; much more will become available in the 1990s. This knowledge provides a great challenge for finding ways to scale up the best family support and child development programs beyond a few communities to cover an entire population. But even as we study these changes, they often outpace our capacity to monitor and understand them. Can we build institutional capacity to catch up and stay up to date in a continuing, long-term way?

In the end, I am hopeful. As a nation, we are awakening to the gravity of the problems of today's children. This should make it possible for us to utilize the experience of interventions so far undertaken and to improve them by strengthening our research capability in the biomedical and behavioral sciences that bear upon child development, health, and education. Armed with these bodies of knowledge

and experience, we can construct more effective interventions for our children in the years ahead — both within the family and beyond it. We can address such great problems effectively, we can relieve terrible suffering, we can stem the grievous loss of talent and life — if we have the vision and the decency to invest responsibly in tomorrow's children and thereby in the future of all humanity.

David A. Hamburg

President

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Report on Program

Grants and Appropriations

Carnegie Corporation of New York is a philanthropic foundation that was created by Andrew Carnegie in 1911 to "promote the advancement and diffusion of knowledge and understanding among the people of the United States." Its charter was amended subsequently to permit the use of funds for the same purposes in certain countries that are or have been members of the British overseas Commonwealth. On September 30, 1991, the end of the fiscal year, the Corporation's total assets at market value were about $975 million.

During the year 1990-91, the trustees approved 280 grants and 6 appropriations for projects administered by the officers, totaling $44,998,570. Ninety-seven grants were made to 55 schools, colleges, and universities; 183 grants were made to 148 other organizations.

The Corporation's grants are made for purposes that are broadly educational in nature; they need not be limited to the formal educational system or to educational institutions. The foundation makes it a policy to select a few areas in which to concentrate its grants over a period of years. Currently the grant programs fall into three broad areas: The Education and Healthy Development of Children and Youth, Strengthening Human Resources in Developing Countries, and Cooperative Security. Grants that do not fit easily into these categories are listed under Special Projects. Overviews of each program area and descriptions of the major grants made during the year are given on the following pages. Grants of $25,000 or less are listed at the end of each subcategory with a brief statement of purpose.

There is no formal procedure for submitting a proposal. Anyone seeking support for a project in one of the areas stated above should submit a brief statement describing the project's aims, duration, methods, amount of financial support required, and key personnel. On the basis of this preliminary statement, officers will review the proposal in light of their knowledge of the field and in relation to the Corporation's current program priorities. If they decide to consider the project for funding, they will ask for a more developed project proposal. The full proposal should state the purpose and goals, the amount desired, and the duration of each project and its phases. It should provide a detailed work plan and budget and indicate any other sources of funds. The *curriculum vitae* of key personnel should be included as well. The proposal should be preceded by an executive summary. Before a grant is made, additional materials may be required, including a formal request from the head of the institution.

The foundation does not operate scholarship, fellowship, or travel grant programs; nor does it make grants for basic operating expenses, endowments, or facilities of educational or human service institutions.

The Education and Healthy Development of Children and Youth

The educational performance of the United States must improve dramatically to meet the demands of citizenship and changes in the world economy in the late twentieth century. The most urgent need is for a higher-quality education for disadvantaged minority students, who will make up an increasing proportion of the student population in the years ahead. The grant program, The Education and Healthy Development of Children and Youth, is focusing broadly on the factors that impinge on education. It is looking not just at schooling but at the role of families, media, business, religious institutions, and health and community organizations. These social and cultural support mechanisms can provide the motivation and sense of future opportunities that are key to educational achievement. In particular, the program is addressing the link between education and health. Damage to health in the early years of life can significantly alter a child's ability to learn; in later years these effects, along with risk-taking behaviors, can curtail educational achievement.

The program is concerned with children and youth up to age fifteen. A major area of concentration is the health and development of children from the prenatal period through age three. Attention is also being given to efforts to improve the quality of child care and early education and to ensure success for all children in the early elementary grades.

A second emphasis is on improving the educational achievement and reducing the health problems of young adolescents. The Carnegie Council on Adolescent Development, an operating arm of the Corporation, was established to stimulate sustained attention to the risks and opportunities of the early adolescent years. A series of Corporation grants is allowing interested states to follow up on the recommendations for the reform of middle grade education contained in the council's report, *Turning Points: Preparing American Youth for the 21st Century.* Support is also being given for more comprehensive approaches to the prevention of adolescent health problems, including pregnancy, drug abuse, and violence.

The scientific and technological transformation of the world economy requires greatly improved scientific understanding. The Corporation's small resources in this third area are supporting selected curriculum projects and the dissemination of programs that encourage the study of science and mathematics among minority members and girls.

A fourth emphasis is on school reforms that hold promise of being more effective, particularly for disadvantaged minority students. Attention is being given to the education profession, to analysis of various forms of local school restructuring, to linkages between schools and other sectors, and to the support of state leadership in education reform.

Columbia University — $1,000,000

In 1987 the Corporation joined the Ford Foundation in supporting establishment of the National Center for Children in Poverty. Directed by Judith E. Jones, associate clinical professor of public health at Columbia University, the center collects, analyzes, and disseminates information about policies and programs that foster the healthy development of poor children in the first six years of life. Expert panels in child care, maternal and child health, and family support have assisted the center's small core staff in producing a number of influential documents addressing research and program gaps in family day care, health programs for poor children, the impact of welfare reform on children, and family support programs. One of the center's several publications, *Five Million Children*, has been used to encourage a new focus on poor children by some foundations and new attention by the Social Science Research Council to research on families in poverty. In addition to continuing to work with churches on maternal and child health community outreach, the center is conducting two new projects: one to assist states in improving the quality of family child care and one to disseminate information on effective models for integrating health, social, and education programs for at-risk families. This grant extends the Corporation's support for another two years, joining a major grant from the Ford Foundation and project assistance from the Charles Stewart Mott Foundation and the Pew Charitable Trusts.

Johns Hopkins University — $470,000

Success for All, a collaboration between the Baltimore City Public Schools and the Center for Research on Effective Schooling for Disadvantaged Students at the Johns Hopkins University, is a promising research-based experiment aimed at ensuring that high-risk children do not fail. It offers disadvantaged children academic support from preschool through the third grade. The program emphasizes language and reading development and early, sustained help to avoid learning problems. It also employs cooperative learning techniques and encourages parental involvement through a family support team. Research on the program — which currently operates in thirty-one schools in twelve states — finds that the reading scores of participating students in grades one, two, and three are significantly higher than those of a control group of students in schools without the program. Under the Corporation's three-year grant, the research team led by Robert E. Slavin, director of the center's Elementary School Program, and Nancy A. Madden, a research scientist at the center, is studying why and how the program works. The team is assessing its potential on a wider scale as an alternative to special and compensatory education, both of which apply remediation only after a child has already fallen behind. The researchers are also completing the development of reading, writing, language arts, and mathematics curricula for the program and formulating and testing quantitative and qualitative measures closely tied to these curricula.

University of Chicago $400,000

Recognizing the need for better understanding of early childhood development and family functioning in low-income communities, the Corporation has recently supported several projects that seek to improve the research base for programs to improve outcomes for poor children and their families. The Center for Successful Child Development in Chicago, known as the Beethoven project, provides comprehensive social support services to black families with infants and toddlers in the Robert Taylor Homes, a large public housing complex with high levels of unemployment, drug abuse, and crime. Among the services the project offers are prenatal and pediatric health care, child care, parent education, and family support. In 1989 the Corporation gave a planning grant to a team of researchers from the University of Chicago and the Erikson Institute of Child Development to design a study of the project's impact on patterns of child care, child development, and family functioning among the participants. The study, now being carried out under this thirty-month grant, is also examining the roles of extended family members in the care and nurturance of young children and the sources of nonfamilial social support available, such as local social service agencies and schools. The findings, which will be published in research journals and a report for program developers and policymakers, should benefit this and other efforts to improve the life chances of poor, inner-city children. The study team includes Sydney L. Hans and S. Aisha Ray, both development psychologists at the university, and Robert Halpern, a faculty member at the Erikson Institute.

National 4-H Council $400,000

Grouped together, injuries are the single greatest threat to children's health and life. With Corporation support, the Erikson Institute in 1989 established the Communities for Child Safety Project, a training and credentialing program on child safety for professionals such as nurses, social workers, and early child development specialists. The curriculum acquaints community child safety teams with available resources to prevent injuries, teaches them how to build coalitions of support and use the mass media, and helps them formulate concrete plans of action for improving child safety in their communities. In 1990 the project was transferred to the National 4-H Council to become one of that organization's permanent programs. The 4-H program is closely tied to the U.S. Department of Agriculture's Cooperative Extension Service, which has offices in every county in the United States. This two-year final grant is permitting continued dissemination of the project through a regional training and support system for the community child safety teams and a process for maintaining quality and authenticity. Social worker Barbara A. Chamberlain directs the project and coordinates the overall effort in collaboration with the staff of the National 4-H Council and the Cooperative Extension Service.

University of Rochester $330,000

A program of home visits by nurses to 400 low-income mothers during and after pregnancy carried out by David L. Olds, a child development expert, and a team

of nurses from the University of Rochester has improved infant health and helped mothers avoid subsequent unwanted pregnancies in the city of Elmira. The Corporation in 1988 provided partial support for Olds and his staff to replicate the home-visiting program on a larger scale among 1,254 low-income, young, first-time mothers in Memphis and to study its costs and effects. The aim of the Memphis New Mothers Study is to determine whether the program improves women's health habits, infant caregiving skills, and educational and occupational achievements; reduces their number of unwanted pregnancies and their reliance on welfare; and helps prevent prematurity, low birthweight, delayed growth, and nutritional deficiencies in their babies. The cost-benefit analysis will also assess whether investment in this program results in reduced government spending on other programs. This grant, toward the collection of data on child development outcomes and the cost-benefit analysis, renews the Corporation's support for another three years. The U.S. National Institutes of Health, along with the Robert Wood Johnson and W. T. Grant foundations are also funding the study, which is expected to influence policy debates over establishing home visitation on a much broader scale, possibly as an optional Medicaid service.

National Association for the Education of Young Children — $425,000

With 74,000 members the National Association for the Education of Young Children (NAEYC) is the nation's largest organization of early childhood professionals. It acts on behalf of children from birth through age eight by providing professional development opportunities and setting and promoting standards of practice for the early childhood profession. In 1984 NAEYC established the Child Care Information Service with support from the Corporation. The service provides research-based data on early childhood issues to policymakers, business leaders, parents, media representatives, researchers, and members. In 1990 the service responded to more than 17,000 inquiries, a number reflecting rising interest at both state and national levels in early childhood education and child care programs. This two-year grant is supporting NAEYC's new operating arm, the National Institute for Early Childhood Professional Development, aimed at improving the quality, consistency, and accessibility of professional preparation and training of early childhood educators and child care providers. The institute will set standards for teacher preparation and training programs, implement a program review and approval system to credential all levels of professional preparation, disseminate information through conferences and publications, and conduct leadership development institutes. NAEYC expects that after four years the institute's work will be self-funded through fees for services from participating institutions, programs, and individuals. Sue Bredekamp, a nationally recognized authority on professional development programs for young children, directs the institute.

Mental Health Law Project — $250,000

The Corporation has supported several efforts to expand the availability of early childhood services that will help ensure that all children are prepared to succeed

in school. The Mental Health Law Project, a public interest organization devoted to establishing and protecting the rights of the mentally ill and disabled, has received Corporation grants since 1984 to help bring early childhood services to low-income disabled and mentally ill children. In 1989 the organization began offering information and technical assistance to a network of 2,000 early intervention advocates to help states comply with Public Law 99-457. That law provides funds to states for five years to plan comprehensive early intervention services for disabled infants and toddlers and those at risk of disability. Under this two-year grant and funds from the Smith Richardson Foundation, project staff members Leticia Patiño and Margaret Lorber will build on their experience to promote the full participation of low-income and minority families in these programs. They have formed a task force of representatives from several national organizations and government agencies, including the Children's Defense Fund, the National Urban League, and Head Start, that will share information and offer parents information, training, and expertise in the rights and procedural safeguards for ensuring access to the states' intervention services. Other project activities include the distribution to all states and network members of a book on procedural safeguards and the publication of papers summarizing key developments in the early intervention field.

Families and Work Institute — $250,000

The most prevalent form of group care for children under age three in the United States is family child care, in which providers care for several children in their home. Such care, a practical option for many low-income families, is largely unregulated; often caregivers lack suitable training for the important work that they do, and their impact on child development is of special concern. Yet little is known about what constitutes high-quality care under these circumstances and about what measures can be taken to improve quality. With the Corporation's three-year grant, national authorities on child care at four institutions are together investigating the impact of training and state regulation on the quality of family child care and the impact of variations in quality on child development. Their research, guided also by other expert advisors, is being conducted at three different sites — San Fernando, Dallas, and Charlotte. The findings, to be published in policy reports and scholarly journals, will fill part of the knowledge gap in this domain and should have significant implications for policy and practice. The consortium's lead organization is the Families and Work Institute, a research and educational organization whose copresident, Ellen Galinsky, is principal investigator. Other institutions involved in the study are New York University, Purdue University, and the University of California, Los Angeles. The Smith Richardson and Dayton Hudson foundations are also funding the study.

Far West Laboratory for Educational Research and Development — $175,000

A serious obstacle to the implementation of effective training programs for family and center-based day care for infants and toddlers has been the lack of appropriate

instructional materials. The work of the Far West Laboratory for Research and Development is helping fill this gap. For the past five years, the laboratory has been developing with the California Department of Education a comprehensive training system for infant and toddler caregivers. The materials, devised in consultation with 2,000 providers, 1,000 parents, and advisory groups of experts, are organized into modules. These consist of videotapes, written summaries of the videos, and curriculum guides that deal with important aspects of early development, caregiving practices, and child health and safety. In 1988 the laboratory used Corporation funds to develop modules on culturally sensitive caregiving, the promotion of creativity through play, and caring for infants in groups. This one-year grant extends the Corporation's support for another year, allowing the laboratory to complete the final module on parent-provider relationships in infant and toddler care and the best ways to communicate with infants. The completed modules, videos, and print guides are also translated into Spanish and Chinese. The entire training package is expected to be disseminated nationally. J. Ronald Lally, a developmental psychologist who heads the laboratory's Center for Child and Family Studies, is director of the project, which is also supported by the Ford and Smith Richardson foundations.

National Center for Clinical Infant Programs — $100,000

Founded in 1977, the National Center for Clinical Infant Programs is the only national organization whose programs of training and technical assistance are devoted solely to the needs of at-risk children under age four and of their families. In 1989 the center launched the Better Care for Babies Project with Ford Foundation support. Staff members of the project have been working with senior-level interagency teams in Utah, Florida, and Illinois to plan and implement improvements in child care in their states. Among the project's promising outcomes to date are the formulation of new standards to minimize conflicting regulations and reduce significant barriers to the increased supply of quality child care in Chicago and a plan to expand Medicaid-reimbursable health coverage to infants and toddlers enrolled in child care programs in Florida. This one-year grant underwrote the center's national technical assistance forum, held in June 1991, to help communicate the lessons learned in the project to a broader audience of state and national policymakers and to exchange other knowledge about state agency approaches. Four commissioned policy papers, now being disseminated, investigate new possibilities for financing higher-quality programs and highlight innovative plans. Codirectors of the project are Peggy Pizzo, author and nationally recognized expert in child care, and Abbey Griffin, who has previously directed child care centers in the Washington, D.C., area.

MELD — $47,000

MELD (originally Minnesota Early Learning Design) was established in 1975 to provide information and support concerning child health and development, family management, and personal growth to new parents in a peer self-help group setting

aided by trained facilitators. It has since created programs to meet the special needs of teenage mothers and parents of disabled children. Its programs have been successfully replicated in approximately 100 locations in the United States and internationally. In 1987, with support from the Corporation and several California foundations, MELD adapted its program for use with low-income Latino parents and tested it among 200 Mexican and Mexican American families in two Los Angeles sites. An evaluation of the new program, called Nueva Familia, revealed the need for more peer-group interaction and long-term participation by parents before the model is replicated among other hard-to-reach populations. Under this year-long final grant, MELD is helping the Nueva Familia program sites make the transition to self-sufficiency, preparing and pilot testing new curricular materials, producing training materials for parent group facilitators, and developing a culturally relevant adaptation of a baby manual originally produced for teen mothers. All materials will be in English and Spanish. Ann Ellwood, executive director of MELD, has overall responsibility for the project.

Wheelock College — $300,000

As mothers of infants and toddlers enter the workforce in ever greater numbers, the demand for day care and early childhood education has escalated. Recent studies are producing strong evidence, however, of the need for better-quality training, higher wages, and improved working conditions for child care workers if families and children are to be adequately served. The new Center for Career Development in Early Care and Education at Wheelock College, directed by Gwen G. Morgan, an authority on child care policy and regulation, is trying a number of strategies to upgrade the quality of preparation and the conditions for employment of early childhood workers. Morgan and her staff plan to produce a "state of the states" report on the progress of early childhood training for distribution to 2,000 policymakers, researchers, and practitioners. Additionally, they have identified five sites (in California, Delaware, Massachusetts, Connecticut, and New York) that demonstrate aspects of effective preparation and training, to which they will provide technical assistance and minigrants to help them further improve their systems and to develop models for replication elsewhere. The center plans to hold a national conference and issue periodic bulletins about effective training models, creative financing arrangements, and current research on career development in early education and child care. This two-year grant provides partial support for the first two years of the center's operation, together with grants from the Rockefeller Brothers Fund and the Ford and A. L. Mailman Family foundations.

National Academy of Sciences — $650,000

The Corporation's program on behalf of children has sought to link research knowledge in child development and related fields to decision makers responsible for shaping policies toward vulnerable children. Under a 1987 Corporation grant, the National Academy of Sciences' Institute of Medicine and the National Research Council's Commission on Behavioral and Social Sciences and Education created the

National Forum on the Future of Children and Their Families as one means of bringing scholars together with high-level government and business leaders to discuss research results and examine program and policy options for improving children's well-being and life opportunities. Guided by a twenty-five-member steering committee chaired by former U.S. Surgeon General Julius Richmond, the forum addresses a wide range of issues including family support, child care, early childhood education, access to health services, and universal prenatal care. This grant extends the Corporation's 1989 support for another two years. Funds are being used for staff, steering committee meetings, and commissioned papers as the forum monitors the success or failure of different programing alternatives in reaching children and their families. Patti Ann Place is project director of the forum.

Columbia University — $200,000

In recent years, several Western European and Scandinavian countries have implemented or planned a variety of income, child care, health, and other family support policies that enable parents to look after their infants at home anywhere from one to three years. These policies, some of them offering job protection, supplement existing paid maternity leaves and public assistance programs. While the United States is unlikely to adopt programs that offer universal coverage, many child care experts believe that there are useful lessons to learn from the European experience. This two-year grant is enabling Sheila B. Kamerman and Alfred J. Kahn, codirectors of the Cross-National Studies Research Program at the Columbia University School of Social Work, to conduct a comparative analysis of innovative policies and programs for children under age three in the United Kingdom, Italy, Germany, France, Finland, and Denmark. The study, involving the synthesis of existing data, the collection of new data through interviews, and the analysis of relevant program documentation and evaluations, is looking at such matters as economic support, parental demand for child care, strategies for the disadvantaged, financing methods, and degree of success. The Corporation's grant is being used toward salaries, research and administrative support, travel, and production of the final report.

American Enterprise Institute for Public Policy Research — $100,000

With support from the Corporation and other foundations, the American Enterprise Institute in May 1990 conducted a four-day briefing on children and family issues for new executive branch appointees in the Bush administration. A recurrent theme was the need to overcome the fragmentation of social support, health, and education programs for at-risk children and families, whose lives are often blighted by a complex mix of social, economic, and personal problems. This need could be addressed, the participants agreed, by more administrative flexibility at the federal level to permit state and local program variations, by the coordination and blending of narrow categorical programs, and by the provision of additional funding. This nineteen-month grant is supporting the institute's formulation of a research-based report and a strategic action plan to improve the delivery of state and local programs for at-risk children and youth. In consultation with the White House, key

federal agency and congressional officials, and national experts, the institute is organizing a series of working seminars on integrated services under the direction of Douglas J. Besharov, a resident scholar at the institute and a national authority on child welfare issues. A report to be disseminated to policymakers and the media is likely to propose state demonstrations to test a variety of methods by which programs for at-risk children and families can be more effectively integrated. Other funders are the Pew Charitable Trusts and the JM, Joyce, and Smith Richardson foundations.

National Association of State Boards of Education — $170,000

The education summit in 1989 convened by President George Bush and the nation's governors developed six national goals for the improvement of American education. A Gallup survey reveals that most Americans believe the first goal is attainable by the year 2000: that all children in America will start school ready to learn. There is little agreement among experts, however, about the best ways to assess young children's "readiness" for school. Under this one-year grant, the National Association of State Boards of Education, representing lay leaders in state education policy, formed a National School Readiness Task Force. Its purpose was to synthesize the best available knowledge of the skills young children must accumulate to prepare them for formal education and the types of intervention programs that, if implemented more broadly, could ensure that all the nation's children acquire these skills. Two important goals were to develop alternatives to potentially damaging early childhood assessments of school readiness and to work with policymakers and educators in developing a comprehensive set of readiness indicators. The task force, which was chaired by Governor Bill Clinton of Arkansas, consisted of public education officials, state legislators, early childhood teachers and principals, and education experts. It will summarize its findings in a report and produce a resource guide to exemplary state programs and policies. Thomas Schultz, the association's early childhood project director, directs the work of the task force.

Harvard University — $150,000

Family support and parent education programs show promise of improving the life chances of children most at risk of having health and developmental problems. These programs, intended to provide parents with information, emotional support, and practical help in caring for their children, have developed in churches, hospitals, self-help organizations, social service agencies, day care centers, and, most recently, schools. In 1986 the Harvard Family Research Project, directed by Heather B. Weiss, received grants from the Corporation and the Ford and Charles Stewart Mott foundations to evaluate family support programs in order to promote better practices. A 1988 Corporation grant allowed Weiss and her colleagues to conduct an in-depth study of school-based family support programs. The study resulted in the resource guide, *Raising Our Future*, which profiles family support and education programs in over seventy school systems. In addition, the researchers completed case studies of nine states introducing such programs in the schools. With this

sixteen-month final grant, a writer and editor are preparing a manual on the planning, implementation, and assessment of such programs for distribution to state and local program planners and practitioners and selected school officials.

Bank Street College of Education — $50,000

In 1989 the Corporation supported a national research-based conference at Johns Hopkins University on the scope and causes of homelessness among families and the best approaches to reducing its severity. This ten-month grant is aimed at helping local practitioners follow up on the conference's and resulting report's chief conclusion: that multiple forms of support are needed to help many families in such circumstances. The New York Family Services Project of Bank Street College and the National Center for Children in Poverty at Columbia University are carrying out a study of local programs that provide comprehensive services in six geographically and demographically diverse sites throughout the United States to identify the common features of their success. Each program offers children and families health care, counseling, education, child care, and extended contact, while providing them with emergency shelter or transitional housing. The center, which helped design the study, will publish and disseminate the final report to policymakers, program operators, and advocates and will enlist the media in communicating the study's conclusions and recommendations to the general public. Janice M. Molnar, research scientist for the New York Family Services Project at Bank Street College, and William R. Rath, who has been a program administrator with several social services agencies, are codirectors of the study.

Yale University — $64,000

A leader in the promotion of national policies for prenatal care, Lorraine V. Klerman has served on the U.S. Public Health Service's Expert Panel on the Content of Prenatal Care, the Maternal and Child Health Section of the American Public Health Association, the Institute of Medicine's Committee to Study Outreach for Prenatal Care, and the Council of Advisors for the National Center for Children in Poverty. With Corporation support, Klerman is using a one-year sabbatical leave from her position as professor of public health at the Yale University School of Medicine to explore unconventional but practical approaches to prenatal care in the United States and to examine ways to effectively integrate child health and welfare programs. Klerman will prepare a paper based on information gleaned from her site visits and a review of current literature. She is also contributing to the work of the Corporation's Task Force on Meeting the Needs of Young Children and to the Carnegie Council on Adolescent Development. Yale University is providing sabbatical support.

Discretionary grants

Child Care Employee Project, toward a resource guide for states about improving the quality of the child care work force	$25,000

Children's Defense Fund, for meetings on state implementation of federal child care legislation	$18,000
French American Foundation for the Development of Relations between France and the United States, toward a project to inform U.S. policymakers and practitioners about the French child care system and its relevance to the United States	$25,000
National 4-H Council, for a training, certification, and assistance program for community child safety specialists	$25,000
Wellesley College, for a revision of *School-Age Child Care: An Action Manual*	$21,000

Increasing educational achievement and reducing health problems among young adolescents

Carnegie Council on Adolescent Development **$1,063,556***

The goal of the twenty-five-member Carnegie Council on Adolescent Development, which was established with Corporation funds in 1986, is to generate public and private interest in measures that prevent damaging problems in adolescence and promote healthier adolescent development. Through task forces, working groups, and other activities, the council seeks to break through interdisciplinary barriers, consolidate the best available knowledge, and identify needed research. With the Corporation the council issued the report, *Turning Points: Preparing American Youth for the 21st Century*, and commissioned a synthesis of current research on adolescent development, which was published as *At the Threshold: The Developing Adolescent* in 1990. In 1991 the council undertook assessments of the health of American adolescents and of current efforts and future directions in adolescent health promotion. In addition, after identifying the potential contributions of America's youth organizations for young adolescents as an area in need of further exploration, it created the Task Force on Youth Development and Community Programs, the goals of which are to expand community-based services for young adolescents, particularly those living in high-risk environments, and to enhance public understanding and support of such services. The council is also pursuing a series of dissemination activities on adolescent health and on the research implications of the council's preventive intervention activities through an applied science policy initiative. Recently, the council has begun to explore how its work can be shared with other countries toward mutual exchange of promising approaches to prevent adolescent problems. Members are continuing to explore issues related to the prevention of violence and injuries among adolescents, to stimulate greater awareness of the importance of adolescent development among policymakers in government and the voluntary sector, and to serve as a resource to journalists and others. David A. Hamburg, the Corporation's president, heads the council, and Ruby Takanishi, a specialist in child development and social policy, is executive director. This appropriation supported the council in 1990-91.

* *Administered by officers of the Corporation*

Stanford University $570,000

The Program in Human Biology at Stanford University is an interdisciplinary undergraduate major that integrates study of the biological sciences with psychology, history, culture, social institutions, and health. Previous Corporation grants enabled faculty members from the program to plan, design, and develop the initial prototypes for a two-year curriculum for young adolescents, known as the Middle Grades Life Sciences Initiative, adapted from the core sequence of courses at Stanford. The curriculum has evolved under the direction of H. Craig Heller, professor of biology and chair of the program, and Herant A. Katchadourian, professor of psychology and human biology, who see it as a way to stimulate the interests of adolescents in science and help them cope with some of the challenges they face at this critical stage in their lives. The National Science Foundation (NSF) and the Corporation are together supporting the completion, field testing, and publication of the curriculum and the preparation of teacher training materials. The NSF grant covers most of the personnel, development, and materials production costs, while the Corporation's grant provides three years' salary and office support for two additional persons charged, respectively, with responsibility for creating a teacher training component and for day-to-day oversight of the curriculum writers. The Corporation's funding also supports a national advisory committee that includes members of the National Science Teachers Association, the National Middle School Association, the American Medical Association, and the various sciences represented in the curriculum.

Stanford University $435,000

"Tracking" — the common practice of grouping students into classes according to so-called ability level — is considered by many researchers and educators to harm those assigned to lower academic groups. There is evidence that these students may never catch up to their peers who receive more challenging instruction and that they become stigmatized and isolated within the school. In an attempt to promote high achievement for all, Stanford University's Program for Complex Instruction has developed a solid body of knowledge about teaching and learning in heterogeneous elementary school classrooms. With support from the Corporation since 1986, the program's instructional approach, methods of teacher training, and model of organizational support have been widely disseminated in California through a network of centers for the professional preparation of teachers at California State University campuses. This three-year grant is enabling Stanford to adapt and test the approach, which employs cooperative learning strategies, in heterogeneous middle grade classes. Middle grade curricular materials in the life sciences, mathematics, and social sciences are undergoing modification or being created for the purpose of engaging a variety of intellectual abilities. Stanford researchers will assess the program's impact on student achievement in four demonstration sites in Bay Area middle schools. Elizabeth Cohen, a professor of education and sociology at Stanford, is principal investigator.

University of California, Los Angeles — $355,000

The Middle Grade School State Policy Initiative is a Corporation grant program aimed at stimulating reforms in middle grade education, based on recommendations contained in *Turning Points: Preparing American Youth for the 21st Century.* The program awards its grants to states for the development of policies that foster and set the conditions for educational change. Over the next three years the Corporation is supporting comparative case studies of schools in three states to determine whether and how the states assisted are providing the impetus and support necessary for local middle grade schools to adopt the reforms urged in *Turning Points.* Jeannie Oakes, professor and vice chair of the department of education at the University of California, Los Angeles, is leading a research team to investigate the extent to which changes in state policy are reflected in improvements in school practice. As information about implementation is obtained, it will be shared with states and schools to help them in their work and reveal how they respond to feedback about their reform efforts. The study is expected to yield two products: a monograph report of the findings and analyses that will also address general and specific strategies of reform and a guide for policymakers and educators summarizing the lessons learned about restructuring middle grade education.

Pennsylvania State University — $493,000

Although adolescence is a critical period in human development, existing research knowledge on the subject is incomplete and so widely scattered among the disciplines that a coherent theory about the adolescent years is difficult to formulate. A Corporation grant in 1990 underwrote the first year's work of some sixty faculty members at the College of Health and Human Development at Pennsylvania State University, who have met regularly under the direction of the college's dean, Anne C. Petersen, a leading scholar of adolescent development. Their charge is to identify the most critical gaps in current knowledge about adolescence. One issue on which there is common agreement is the dearth of knowledge about low-income and minority adolescents. As a result of these discussions, the college established PRIDE (Policy, Research, and Intervention for Development in Early Adolescence), a program that will focus primarily on populations considered at greatest risk of experiencing health, educational, and social problems. Under this two-year grant, PRIDE is helping to develop pilot studies on at-risk youth to the point where such research can receive other funding. State policies concerning adolescents are a principal focus of such pilot programs. PRIDE is organizing seminars for state legislators and senior policy officials on issues concerned with families and adolescents; it is also holding training institutes and preparing materials for adults who work with young people. The college and the university's School of Communications are contributing to the overall budget for this effort.

Education Commission of the States — $390,000

Previous Corporation support enabled the Education Commission of the States to analyze how state and school policies could better serve young people at risk of

dropping out of school. The commission's analysis produced several recommendations, key among them the use of mentoring — guidance offered directly by older persons to at-risk youth. Mentoring appears to be a highly effective way to foster students' self-confidence and a sense of future possibilities, so that they will be encouraged to stay in school. In 1989 the Corporation supported a follow-up project of the commission, Campus Partners in Learning, to involve adults and older youths, especially college students, in mentoring relationships with children at risk in grades five through nine. Carried out by Campus Compact, a coalition of 250 colleges and universities created by the commission, the project has developed principles of good practice in campus-based mentoring programs, prepared resource manuals, and established programs on twelve campuses involving over 300 mentoring pairs. With this twenty-nine-month renewal grant, the compact is building the basis for widespread replication and cultivation of these programs. The project staff, directed by Brooke Beaird, is working with national groups that seek to promote the concept of mentoring and is developing a campaign to educate the constituencies of key national organizations of school professionals about the benefits of mentoring programs. New mentoring programs will be established on ten to twenty campuses.

Public/Private Ventures — $344,000

In recent years hundreds of business and minority organizations, universities, and social service agencies around the country have developed small promising mentoring programs for at-risk youth. The practices in these programs vary tremendously, however, and few have been evaluated for their effectiveness and costs. The operational lessons from experience have not been systematically assessed or communicated. This thirty-month grant is enabling Public/Private Ventures (P/PV), a research organization in Philadelphia, to conduct a research and demonstration project on two kinds of mentoring programs — one involving retirees and the other in which college students mentor and tutor middle grade youth. The project team, headed by Cynthia L. Site, director of quantitative research at P/PV, is examining seven existing intergenerational programs in which elders mentor at-risk youth; in addition, the team is developing two pilot demonstrations in which elders and some younger adults mentor youth in the context of large public agencies. Current mentoring programs operate independently of large institutions, yet agencies have the greatest access to at-risk youth and to other services these young people may need. Among the questions expected to be answered by the project are whether some groups of youth benefit more than others, how elder mentors compare with younger ones, and what practices and incentives best promote and sustain matches. Findings from all nine sites will be synthesized into a report in 1993. Funders for other types of mentoring programs developed by P/PV include the Lilly Endowment, the John D. and Catherine T. MacArthur Foundation, the Pinkerton Foundation, and the Pew Charitable Trusts.

National Council of La Raza $320,000

The school dropout rate for Hispanics is higher (25 percent) than that for whites (15 percent) or blacks (19 percent). Despite this, education policy and school reform efforts have largely ignored the needs of Hispanic children and youth. In 1986 the National Council of La Raza, the nation's principal Hispanic advocacy organization, obtained a Corporation grant to plan a demonstration project known as Project EXCEL (EXcellence in Community Educational Leadership). The project aims to supplement public school offerings with community-based programs that bring together parents, teachers, and the private sector in partnerships to work with Hispanic school-aged children and youth to increase educational success. The current two-year grant is permitting two evaluators to assess educational outcomes in two of six types of programs: Academia del Pueblo (which conducts after-school and Saturday academies as a way of preventing school failure) and Parents as Partners (which helps parents learn about how to support learning). The evaluation design has been developed in consultation with faculty members from the Center for Research on Evaluation, Student Standards, and Testing at the University of California, Los Angeles. The evaluators are also examining how best to implement successful programs in other community settings, preparing articles on the evaluation results for educational audiences, and developing curricular materials and implementation guides for other Hispanic community organizations.

Young Women's Christian Association of the U.S.A., National Board (YWCA) $300,000

The YWCA, in existence since 1858, has traditionally served women and girls over age twelve. Today, more than 90 percent of YWCA's 400 affiliates offer child care; many offer shelter for battered women and their children and services to pregnant teens and teen parents. Founded in 1945, Girls Incorporated (formerly Girls Clubs of America) aims to prepare girls from ages six to eighteen for responsible adulthood and economic independence. Under this three-year grant, the two organizations are undertaking a joint venture, known as Tomorrow's Women, to bring tested intervention programs to hundreds of thousands of girls at risk. The benefit for the YWCA is to reach more disadvantaged girls without having to develop new programs; for Girls Incorporated, it is to draw on the YWCA's network of affiliates (which is double that of Girls Incorporated) to reach more girls. Eight local YWCAs are to serve as demonstration sites where several Girls Incorporated programs will be implemented. These include efforts to prevent adolescent pregnancy and substance abuse; Operation Smart, to encourage more girls to participate in mathematics, science, and technology; and Friendly PEERsuasion, to help girls resist pressures to take drugs and smoke. Gretchen Wooden is director of the project, which is also supported by local foundations and corporations in areas where demonstration sites are located.

Association of Junior Leagues International $225,000

Of the many programs designed over the past decade to delay the onset of sexual activity and reduce adolescent pregnancy and school dropout, few have been as successful as the Teen Outreach Program (TOP). Operated by the Association of Junior Leagues International, which has 227 affiliates across the nation, TOP is a comprehensive program that offers adolescents a curriculum on family life education and life options and requires community service. Through its activities, TOP is currently helping more than 1,000 students develop a positive self-image, deal with family, school, and peer pressures, and acquire preemployment skills. In 1988-89, TOP participants had 42 percent fewer pregnancies and 36 percent fewer dropouts than did their peers not enrolled in the program. This three-year grant is supporting the replication of TOP in middle schools. Association staff will assist two states each year that are committed to expanding the program to middle schools statewide and community-level sponsors interested in implementing TOP district- or system-wide. Both top-down and bottom-up approaches are needed if TOP is to offer more options to potential sponsors and extend its services to more adolescents. Association staff members will establish guidelines for implementing the programs, train facilitators, revise and field test the curriculum, and produce program guides for each model. Kathy Herre is coordinator of TOP. The replication effort is also being supported by the Charles Stewart Mott and DeWitt Wallace-Reader's Digest foundations.

Center for Population Options $200,000

In 1971 one in seven fifteen-year-old girls was sexually active; by 1986 the ratio was one in four. Since 1985 the Center for Population Options, an organization that focuses on adolescent reproductive health, has used Corporation support for a project aimed at stimulating responsible, accurate programing about adolescent development, sexuality, and family planning over the electronic media. The project's staff, based in Hollywood, offers technical assistance and accurate information to producers, writers, and network and studio executives with the aim of making the storylines in television programs and movies more realistic about this age. This grant extends the Corporation's support for another two years, enabling the center to build on its reputation with the entertainment industry and broaden its activities to include more outreach to radio, music, MTV, feature films, and advertising. The center is encouraging radio and television stations to accept contraceptive advertising and developing a media project to assist media professionals in providing accurate messages about sexuality to adolescent Latino audiences. The center is also evaluating its established activities — the media advisory service, a consumer advisory service promoting parent/child discussions about sexuality and critical viewing skills, and information seminars for writers, producers, network executives, and movie critics. Judith Senderowitz is the center's executive director.

Quality Education Project **$45,000**

Despite its documented benefits to children's achievement, parental involvement in schools declines steadily over the elementary school years. The Quality Education Project (QEP), established in 1982 in twenty elementary schools in the Oakland Unified School District, is attempting to reverse this trend by helping parents and educators work together to identify and resolve problems in school. Beginning in 1986, after improvement in student mathematics and reading scores and increased parental participation in conferences with teachers, QEP used a Corporation award to expand from twenty to sixty Oakland schools and develop a training manual for principals, teachers, and parents for use in Oakland and in QEP-model projects elsewhere. With additional Corporation support in 1988, the manual was expanded to cover such topics as parents and community members as volunteers in the classroom and study skills for students, and it was translated into Spanish. This eighteen-month final grant is supporting further development and adaptation of the manual for use in middle schools. Sections of the draft document will be pilot tested in the Oakland and Sacramento school districts. Prepared on the basis of surveys of school staff members, parents, and scholars and analyses of promising programs and materials, the manual will be distributed to schools and to key educational, administrative, and parental organizations. Linda R. Shea, QEP's statewide coordinator, is supervising the project.

Discretionary grants

Case Western Reserve University, toward support of the Center for Adolescent Health	$25,000
Council of Chief State School Officers, for a state resource guide on school-based community service programs	$25,000
Harvard University, for articles on the education of young adolescents	$25,000
Maryland Student Service Alliance, toward the preparation of a middle grade youth service curriculum	$25,000
National Association of State Directors of Teacher Education and Certification, for revising standards of certification for middle grade teacher education	$21,000
Sex Information and Education Council of the United States, toward a project to develop and disseminate national guidelines for sexuality education for children and adolescents	$25,000
21st Century Commission on African American Males, toward support	$25,000
University of North Carolina, Chapel Hill, for the preparation and dissemination of a report on young adolescents	$23,000
World Health Organization, for planning an international meeting on healthy adolescent development	$9,500

National Board for Professional Teaching Standards — $1,000,000

The National Board for Professional Teaching Standards was created by the Corporation in 1987 to implement the recommendations of the Carnegie Forum on Education and the Economy report, *A Nation Prepared: Teachers for the 21st Century.* The board is charged with setting national standards for the recognition of excellence in teaching in different fields. It is currently contracting for the development and testing of appropriate assessment procedures, to be carried out by a network of assessment development laboratories that draw on pioneering techniques going well beyond paper-and-pencil tests. The board will begin certifying teachers who meet standards in a limited number of fields in 1993, and certificates will ultimately be offered in thirty fields. The board is chaired by James B. Hunt, Jr., former governor of North Carolina, and guided by a sixty-four-member board of directors, of whom two-thirds are teaching professionals and one-third are from the public and private sectors and other areas of education. The board's first policy document in 1989, *Toward High and Rigorous Standards for the Teaching Profession,* laid out the structure of its certification process and five central concepts of excellent teaching that will undergird national certification standards and assessments. While the board's mission is to certify teaching excellence, it also prepares policy papers and holds forums on improving the quality of professional life for teachers and the quality of people in teaching. This one-year grant joins support from Xerox, Du Pont, Chrysler, ARA Services, IBM, RJR Nabisco, AT&T, General Electric, and Sears Roebuck corporations, the Ford Motor Company, the DeWitt Wallace-Reader's Digest Fund, the Lilly Endowment, the Getty Center for Education in the Arts, the Ford Foundation, and the Charlson Research Foundation. Federal funds are expected to match those raised from private sources.

Carnegie Corporation of New York
Middle Grade School State Policy Initiative — $385,139*

In June 1989 the Task Force on Education of Young Adolescents of the Carnegie Council on Adolescent Development released its report, *Turning Points: Preparing American Youth for the 21st Century.* The report urged far-reaching changes in middle grade schools' organization and management, curriculum, classroom practices, student grouping, teacher education and certification, and linkages to health and other supportive agencies. To help implement these reforms, the Corporation established the Middle Grade School State Policy Initiative, a three-year competitive grants program offering assistance primarily to state education departments wishing to institute middle school reforms that are in keeping with the recommendations contained in *Turning Points.* Proposals for 1990 were submitted by forty-three states, the District of Columbia, and the U.S. Virgin Islands; twenty-seven were selected to receive fifteen-month grants of up to $60,000 each, an amount matched by state funds. The recipients were chosen on the basis of the proposed projects'

**Administered by officers of the Corporation*

potential effect on disadvantaged youth, the support of key state and local leaders, and the prospects for statewide impact on education and youth policy. Many of the states' projects are building on existing middle school reform programs. The twenty-seven grantees represent an unprecedented national network of states engaged in comprehensive reform of middle grade education. The challenge to the Corporation is to support states' efforts to implement their projects — by monitoring progress toward goals, enhancing communication and learning among grantees, apprising grantees of scholarly resources and expert counsel, and providing technical assistance. This appropriation is enabling the Corporation to meet this challenge. (See University of California, Los Angeles, page 40.)

Quality Education for Minorities Network — $700,000

The Corporation began funding the Quality Education for Minorities Project (QEP) in 1987. Based at the Massachusetts Institute of Technology and the University of Texas at Austin, it was carried out under the auspices of a thirty-five-member "action council" led by Ray Marshall, former U.S. Secretary of Labor. At the end of three years it produced the report, *Education that Works: An Action Plan for the Education of Minorities,* which offers a blueprint for ensuring high educational attainment among the country's Native Americans, Alaskan Natives, African Americans, Mexican Americans, and Puerto Ricans. With Corporation support, the project was transformed in 1990 into the Quality Education for Minorities Network, an ongoing organization of educators, policymakers, professionals, and leaders of social service organizations that serves as a focal point for efforts to help realize the vision of the action plan. Located in Washington, D.C., the network is facilitating implementation of the plan's six major goals and fifty-eight specific recommendations. Through dissemination of the report and meetings with key audiences, community outreach, and coalition building in cities with high minority populations, the network is promoting legislation, improved policies, model programs, and research to advance the goals of improved minority education. This one-year grant is providing support for the network's office and core staff. Shirley M. McBay, formerly QEP's project director, is president.

National Governors' Association Center for Policy Research — $500,000

At the education summit meeting in September 1989, President George Bush and the nation's governors entered into a partnership dedicated to setting national education goals and establishing mechanisms for holding states and schools accountable for reaching them. Subsequently the staff of the Education Program of the National Governors' Association (NGA) began working with an NGA Task Force on Education to build a national consensus on these goals. A key outcome was *Educating America: State Strategies for Achieving the National Education Goals,* a document covering the entire spectrum from prenatal care to adult education and training. This one-year grant, following previous support for NGA education activities, is aimed at helping the states implement recommendations that call for fundamental restructuring of their elementary and secondary education systems.

The association is developing a media campaign to strengthen public support and held a working seminar to assist states in formulating strategic plans for systemic changes. It is conducting research on critical issues in education, such as ability grouping, and addressing the need for new assessment tools to reflect new performance standards. Susan Traiman is director of the education program, which is also working with other national organizations to achieve the education goals.

Puerto Rican Legal Defense and Education Fund — $450,000

Founded in 1972 to protect the civil rights of Puerto Ricans living in the United States, the Puerto Rican Legal Defense and Education Fund has become a leading advocate of high-quality education for language-minority students. The fund operates primarily in the Northeast in four areas of education where Latino children have faced discrimination and unequal treatment: bilingual education and special education, segregated schools, standardized testing and tracking, and access to early childhood education. It advocates the elimination of standardized testing through the second grade and is studying disparities between Latino and non-Latino neighborhoods in funding for Head Start and for the preschool project, Giant Step, in New York City. It continues to monitor the placement of Latino children in bilingual and special education to make sure that proper determinations have been made and is pursuing strategies to prevent the resegregation of schools. The fund also responds to the needs and concerns of Latino parents and educators in such areas as culturally sensitive curricula, access to quality vocational education, recruitment and hiring of minority teachers and administrators, and access to higher education. This three-year grant, the sixth major Corporation grant to the organization, is paying the salaries of the education staff, costs of litigation, and some overhead of the fund. Ruben Franco is president and general counsel.

American Association for Higher Education — $350,000

The Corporation has made grants totaling more than $12 million to foster partnerships between institutions in higher education, government, and business and the public schools to strengthen education. In 1987 Stanford University and the American Association for Higher Education convened a meeting of thirty-seven college and university presidents, which culminated in an open letter from the attendees to their colleagues at large. The letter, calling on higher education to promote greater professionalism in precollege teaching, was endorsed by an additional 211 college and university presidents. In 1988 the Corporation supported a follow-up project jointly sponsored by the association, the American Council on Education, and the Education Commission of the States to hold regional conferences for college and university presidents on the preparation of teachers. The series culminated in a national conference on school-college collaboration, held in June 1990. This twenty-six-month grant is underwriting the association's new Office of School/College Collaboration, formed in response to the challenge. In addition to holding two annual conferences on school-college collaboration, the office will issue publications to campus leaders advocating academic partnerships and providing information on exemplary projects. Carol F. Stoel is project director.

Temple University $317,000

Schools are facing an acute shortage of teachers from minority backgrounds, a problem that will worsen as those currently in the profession retire. To recruit more minority students into teaching and ensure their high-quality training, Temple University's College of Arts and Sciences and College of Education and the Philadelphia school system are jointly undertaking a new teacher education program with this three-year grant. Minority students recruited into the program will major in a specific discipline in arts and sciences and minor in education. Teacher training will comprise two semesters of practicum offered in the school district's professional development schools, a fifth year of internship fully paid by the school system, and graduate courses on urban schools, families, and communities. The sequence will lead to a master's degree and teaching certificate. If the program is found to lead to higher-quality education and a larger pool of minority teachers, the university will ultimately eliminate its traditional teacher education program in favor of this approach. Julia A. Ericksen is project director.

Teach for America $300,000

This one-year grant continues the Corporation's support of Teach for America, an organization that enlists recent college graduates from a variety of disciplines to teach in primary and secondary schools throughout the United States. Modeled on the Peace Corps, it was first suggested by Princeton University student Wendy Kopp in a senior thesis on how the United States could cope with its shrinking pool of teachers, particularly in inner-city areas. Kopp founded and now heads the program. In 1990, its first year of operation, the program received more than 2,600 applications for 508 positions at pilot sites in Baton Rouge, Los Angeles, New Orleans, New York City, and rural areas of Georgia and North Carolina. Selected applicants attend a summer training institute and agree to teach for two years, during which they participate in orientations, bimonthly meetings, and other supportive activities. Special efforts are made to recruit minority candidates and those with science backgrounds. In addition to providing teachers on a short-term basis to areas where the need is greatest, Teach for America seeks to bring into the field talented individuals who might not otherwise have considered teaching as a profession. The program, which aims over the long term to attract 1,000 people a year, is now strengthening its selection and training mechanisms and restructuring its local offices to expand its mentoring system. Other funders include the W. K. Kellogg and Mobil foundations, the Lilly Endowment, the Chrysler Corporation, and the Du Pont Company.

Council of Chief State School Officers $300,200

The Interstate New Teacher Assessment and Support Consortium is a collaborative effort begun in 1987 by the state departments of education in California and Connecticut to assist states in reforming state policies for assessing, licensing, and supporting new teachers. The consortium was initially based at Stanford University's School of Education in close association with the Teacher Assessment Project

led by Lee S. Shulman, whose work has provided much of the theoretical background for the consortium's approach to teacher assessment and evaluation. In 1989 the consortium's office moved to Washington, D.C., where it was installed as a subprogram of the Council of Chief State School Officers. It now has a membership of nearly 150 organizations, among them the American Federation of Teachers, the National Education Association, and the Educational Testing Service. Twenty-two states are currently working with the consortium to review their licensing standards and procedures. Previous Corporation grants funded the consortium and supported seminars and a quarterly newsletter on issues concerning teacher assessment. Under this two-year grant, the consortium, directed by M. Jean Miller, is continuing these activities and holding national forums on teacher education, assessment, and licensure reform.

Prichard Committee for Academic Excellence — $249,200

In 1990 the General Assembly of Kentucky passed the Education Reform Act, which provides for a comprehensive long-term program of systemic change in the way the state's schools educate children and a $1.3 billion tax increase to finance it. The reform act, which emphasizes educational achievement — what students can do and what they know — as well as the need for new curricula, methods of instruction, and assessment tools to measure achievement, calls for universal preschool for disadvantaged children and ungraded primary education through the third grade. With these changes, Kentucky is undertaking a fundamental restructuring of the state's educational system. The Prichard Committee, served by prominent Kentucky citizens advocating education reforms, is working to ensure that these recommendations are implemented. Among the committee's activities are informing the general public about the state's reform act, providing training for parents and other citizens to participate in school-based decision making, and monitoring and reporting the state's progress. This two-year grant is supporting a national advisory panel to offer guidance on best practices, national and in-state consultants, and an annual *Report to Kentucky.* Robert F. Sexton is executive director of the committee, which is also funded by the Annie E. Casey, BellSouth, and UPS foundations.

Texas A&M University — $222,300

In the emerging consensus among experts that the preparation of teachers needs to be vastly improved, various strategies have been proposed. One plan calls for close cooperation between university and college faculties of education and of arts and sciences in redesigning teacher education. Prior Corporation grants enabled Daniel Fallon, dean of the College of Liberal Arts at Texas A&M University, and Frank B. Murray, dean of the College of Education at the University of Delaware, to implement Project 30. The project is carried out at thirty colleges and universities (selected from across the country to represent a balance in size, geography, public and private status, mission, and minority enrollment) by five-member teams of administrators and faculty from the two divisions. Each institutional team is

charged with becoming a catalyst in revising the undergraduate curriculum for future teachers. Emphasis is on the understanding of subject matter; general and liberal education; pedagogical content knowledge; and multicultural, international, and other human perspectives. They are also charged to improve methods of recruitment into teaching. To date, Fallon and Murray have organized two major conferences and prepared an anthology of project summaries describing the work of the institutional teams as a guide for other institutions. This final grant extends the Corporation's support for another two years, during which Fallon and Murray will write a second book expanding on the philosophy of Project 30, which will become an independent permanent organization.

Editorial Projects in Education — $250,000

Among the obstacles to greater professionalism among teachers are their isolation from peers and their difficulty in keeping up with developments in their field and in education generally. In 1988 Corporation-supported market research sought to increase teachers' readership of *Education Week*, the newspaper of record in elementary and secondary education and a recipient of Corporation funding. The results, while meeting the goals, showed the publication to be too expensive for most teachers and more focused on policy issues than teachers wanted. Attempting to address these problems, Editorial Projects in Education in 1989 launched *Teacher Magazine*, a new vehicle for communicating ideas to and among teachers. The Corporation contributed toward the start-up costs of the magazine, which offers teachers a mixture of news stories about developments in education and academic subject areas, case studies of teaching situations, and forums for teachers to discuss matters of professional and personal concern. *Teacher Magazine's* paid circulation reached 150,000 by the end of 1990, and its editorial content has been praised by organizations and individuals concerned with teacher professionalism. This nine-month grant joins other foundation grants in financing a second-year's drive to make the publication fully self-supporting. Ronald A. Wolk, who founded *Education Week*, is publisher.

Stanford University — $159,650

Studies indicate that textbooks determine 75-to-90 percent of the instructional content and classroom activity of students in the United States, yet analyses of U.S. textbooks show many of them to be poorly organized and overloaded with detail, with an emphasis on rote learning and memorization rather than understanding of the subject. In 1990 a research group based at Stanford University's School of Education and led by Robert C. Calfee, a professor of education and psychology, obtained a Corporation grant to prepare two publications to improve the development of school textbooks and the procedures for selecting them by state and local authorities. The first publication, a monograph for educators, officials, and the public, will present the researchers' views of an ideal textbook and offer ideas on how publishers, states, school districts, and teachers can work together to get better texts into the schools. The second, a manual for the education community,

will provide a framework for improving the procedures by which textbooks are developed, selected, and distributed. Over the past year, the group has observed textbook adoption meetings, interviewed participants in school districts in California and Nebraska, and consulted with textbook publishers. This one-year grant is allowing the group to complete the monograph and develop a detailed outline of the procedural manual.

Discretionary grants

Institute for Educational Leadership, for a report on demographic changes and education	$25,000
Native American Rights Fund, for a study of Indian education issues	$25,000

Improving science education

Association of Science-Technology Centers **$320,600**

The Association of Science-Technology Centers (ASTC) seeks to improve the operations of its 347 members — science, technology, health, and natural history museums in the United States and abroad — and to help them expand their audiences and serve as educational resources to their communities. Science museums are the fastest-growing segment of the museum field and a potentially significant force for improved science teaching in the schools. According to an ASTC survey in 1987, more than 90 percent of the science museums in the United States offered educational programs to local schools. With Corporation support, ASTC has surveyed current teacher education programs in science museums and developed an association for teacher educators at those institutions, the Teacher Educator's Network. Under this three-year grant, ASTC is disseminating the product of its survey, *First Hand Learning: Teacher Education in Science Museums*, which identifies the range of practices, important issues, and case studies of particularly innovative programs. A more comprehensive survey and a data base for program planners are also planned, along with such professional development programs as summer institutes, minigrants for professional study, and working conferences. Andrea Anderson, director of the network, is in charge of this phase of the project.

Mathematical Association of America **$327,000**

Stepping up national efforts to increase the number of underrepresented minorities who succeed in mathematics courses could have a significant impact on minority representation in scientific and business careers. In 1990 the Corporation helped the Mathematical Association of America, the largest professional society in mathematics representing higher education faculty, launch SUMMA (Strengthening Underrepresented Minority Mathematics Achievement). SUMMA involves college and university mathematics instructors in tutorials, mentoring, and other academic

support programs with minority students in elementary, secondary, and higher education. This two-year grant is supporting SUMMA's plan to establish at least forty such intervention projects, each one serving from fifty to one hundred middle and high school students. The association will also survey existing projects, present the results in a resource directory, and conduct workshops for college and university faculty to learn about types of projects that might be replicated; publish a newsletter and a handbook; and hold national conferences of SUMMA project directors. William A. Hawkins, Jr., a professor of mathematics at the University of the District of Columbia, directs SUMMA.

Jackson State University — $310,000

Although more than 50 percent of Mississippi's students in kindergarten through twelfth grade are black, only 20 percent of the black students who graduate from high school complete the courses necessary for university enrollment. The School of Education and the School of Science and Technology at Jackson State University are jointly operating a five-year undertaking, Enhancing the Academic Skills of Youth — Project EASY — for which the Corporation provided a planning grant in 1989. Project EASY, modeled on earlier, successful precollege intervention programs, aims to develop, implement, and disseminate proven strategies and methods for helping underachieving at-risk students in grades seven through twelve succeed in science, mathematics, and communications and to increase these students' participation in related science and mathematics careers, particularly teaching. With this two-year grant, project staff members are operating two regional programs, one at Jackson State and one at Mississippi State University, providing approximately 700 precollege students academic support services, including tutoring, field trips, and a summer enrichment and employment program for 100 students. A family education and involvement component helps parents assume greater responsibility for what and how their children learn. Johnnie R. Mills, dean of the school of education, is director of the project, which is also receiving funds from Jackson State, Mississippi State, and the governor's office.

Children's Television Workshop — $300,000

In response to growing national concern about the state of mathematics education, Children's Television Workshop (CTW) developed a daily public television program about mathematics for children ages eight to twelve. *Square One TV* aims to promote positive attitudes toward and enthusiasm for mathematics, to encourage the use and application of problem-solving processes, and to present sound mathematical content in an interesting, accessible, and meaningful manner. Recent research in Corpus Christi, Texas, indicates that children who regularly watch the program significantly improve their mathematical problem-solving skills, regardless of gender, socioeconomic background, or ethnicity. Under this one-year final grant, the Corporation, which provided planning and production funds for the first three seasons of the program, is supporting it for a fourth season of forty new half-hour episodes and four prime-time specials. CTW is continuing to produce teachers'

guides for the series and to distribute promotional information and support materials to parents, youth service organizations, and other community groups. Among the other contributors to *Square One TV* are the Corporation for Public Broadcasting, the National Science Foundation, and the Station Program Cooperative. Jeffrey Nelson is the program's executive producer.

New Mexico MESA $250,000

One way of encouraging more minority students to study science and pursue science-based careers is to identify those who have an aptitude for science but who would probably not take the more difficult courses in high school without special attention and encouragement. One of the best known academic support programs is MESA (Mathematics, Engineering, Science Achievement). MESA was launched in 1970 at the University of California, Berkeley, targeting tenth-grade students who had completed introductory algebra. Operating in selected Bay Area schools, it offered an array of school-based services such as study halls, tutorials, field trips, and career counseling. Under Corporation grants, MESA began offering the program to minority students in junior high schools to ensure their eligibility for college preparatory high school courses in mathematics, science, and English. Like the California program, New Mexico MESA, headquartered at the University of New Mexico, identifies promising Hispanic, Native American, and African American students in grades seven through twelve and enrolls them in a comprehensive program of challenge and support. With this two-year grant, New Mexico MESA, which graduated its first nine seniors in 1984-85, is increasing the number of school sites from twenty-eight to thirty-five and expanding the number of grade levels covered. It will also run a professional development institute for teachers who act as MESA advisors and design a graduate program at the university to help middle school teachers improve their minority students' science performance. Patricia L. Chavez is executive director.

Scientists' Institute for Public Information $250,000

Surveys have shown that more than half the American people use television as their sole source of news; two-thirds use it as their primary source. Yet television, particularly network television, devotes little time to coverage of developments in science. The reason most often given by network executives is the lack of high-quality visual material to accompany the narration. Over the past ten years, the Scientists' Institute for Public Information (SIPI), a leading force for more and better science coverage by the print and broadcast media, has operated its Media Resource Service, which directs print and broadcast journalists to scientific experts. In 1989, with support from the Corporation, SIPI created the Videotape Referral Service. Directed by Fred Jerome, the service is a cross-referenced data bank of approximately 1,800 tapes from 515 government, university, and research laboratory sources that enables television journalists anywhere in the country to locate quickly visual material for news stories on scientific subjects. This one-year final grant is enabling SIPI to expand the service's basic operations, produce and update

publications, continue outreach to the television news industry, and begin outreach to entertainment television to make the media resource and the videotape referral services available to writers, producers, and editors of prime-time programing.

Institute for Research on Learning — $200,000

Located in Palo Alto, the Institute for Research on Learning was founded in 1987 by a multidisciplinary group of education researchers, including physicists and mathematicians, social anthropologists, and cognitive scientists with expertise in artificial intelligence, psychology, and linguistics. In 1989 the institute used Corporation support to establish a consortium with Stanford University's School of Education and the Center for the Science and Technology of Learning at the University of California, Berkeley. The consortium's purpose is to explore the educational applications of research knowledge in cognitive science and recruit and train minority fellows in cognitive science, a field with virtually no prior minority participation. Over the past two years, the consortium has awarded fellowships to three black scholars, organized a project in which black middle school students use multimedia technology to communicate scientific information, established a research collaboration with San Diego State University, and planned an interdisciplinary symposium on learning environments for science and math. This final grant of one year is enabling the institute to continue support for one of the three minority fellows; to recruit, support, and train two new fellows; and to plan a project to develop and implement a new mathematics program for inner-city middle schools that will focus on the practical applications of cognitive science.

University of Texas, San Antonio — $150,000

Founded in 1987 with Corporation support, the Science Collaborative of San Antonio is a consortium of scientific research institutions, universities, and businesses that sponsors programs to upgrade science education and scientific literacy in San Antonio and South Texas public schools. The collaborative was originally organized under the auspices of Target '90/Goals for San Antonio, a community organization whose education activities were previously aided by the Corporation. This past year, Target '90's public education programs, including the collaborative, merged with the Alliance for Education based at the University of Texas, San Antonio. The collaborative has developed a number of programs focused on San Antonio's twelve school districts, which serve a student population that is more than 60 percent minority. These include linking the resources and expertise of scientists and "science-rich" institutions to the classroom and professional development opportunities for teachers during the summer and school year, which to date have involved an estimated 800 teachers. Under this three-year final grant, the collaborative is working to replicate its activities throughout a twelve-county area of South Texas, expand its professional development program, initiate a summer intern program in the private sector for students and science teachers, and establish similar science collaboratives in all sixty-three school districts in the target area.

Pittsburgh Public Schools $106,800

The Pittsburgh Public Schools system is in the forefront of schools seeking partnerships with universities and industry to improve science and mathematics education. It established the Pittsburgh Science Institute (PSI) in 1984 to pursue programs in curriculum development and teacher training, and it incorporates a high school of science, among other endeavors. A 1986 grant from the Corporation enabled PSI to develop collaborative programs with area colleges, universities, businesses, community science centers, and professional associations to improve precollegiate science education. Fifty-four organizations currently maintain over seventy collaborative projects that include Saturday science academies for elementary, middle, and secondary school students, annual science fairs, classroom programs and experiments offered by visiting scientists, and the training of science teachers in laboratory and "hands-on" science projects. Corporation funds have supported the program's coordinator, David C. McMillin, and partially supported an evaluation of the collaborative process and the dissemination of materials on the model to a national audience. This two-year final grant is continuing this support while the program works toward self-sufficiency through cost sharing between the school district and participating institutions.

Discretionary grants

Marine Biological Laboratory, as a final grant toward a fellowship program for science writers and broadcasters	$25,000
National Academy of Sciences, toward attendance by state policymakers at a national summit on mathematics assessment	$22,000
Southern Growth Policies Board, toward a working meeting on improving math and science education in the South	$25,000
University of California, Berkeley, as a final grant toward a study of differences in school performance, educational strategies, and cultural models among minority groups	$25,000
University of Florida, toward planning a science curriculum on CD-ROM for middle and junior high schools	$25,000

General

Children's Defense Fund $700,000

Founded in 1972 with Corporation and other foundation help, the Children's Defense Fund (CDF) has become the nation's preeminent child research and advocacy organization. Over the years it has drawn regular support from the Corporation and other national foundations. Directed by Marian Wright Edelman, CDF pursues improved policies and programs for poor children and their families, which in

recent years have included the reauthorization and strengthening of Project Head Start, comprehensive child care legislation, and expanded health coverage for low-income mothers and children. This three-year grant provides general support to three of CDF's five program divisions: family support; health; and education, youth development, and adolescent pregnancy prevention. CDF is devoting considerable staff time to ensuring that policies on behalf of poor children and their families are implemented properly and that high-quality services are delivered to those who need them. Under the grant, CDF is also educating the public about child care policies and analyzing the impact of federal education programs on student achievement. CDF continues its efforts to diversify funding sources, raise endowment funds, and increase sales from its publications.

Joint Center for Political and Economic Studies — $547,000

The Joint Center for Political and Economic Studies is the premier research institution focusing on black Americans. In 1990 it obtained a grant from the Corporation to prepare a research agenda and report on black male youth, a population whose well-being, by nearly every socioeconomic indicator, lags well behind that of all other groups. Life expectancy for blacks has been declining steadily in part because so many young black men are murdered or die prematurely from other causes. The current thirty-month grant is supporting a full-scale study of the education and socialization of black male children, the obstacles they encounter to growing up healthy and whole, and effective intervention strategies. In the first phase, the center will collect data from twenty-eight cities on young black males and the risks they face and develop "risk indices" for infancy, adolescence, and adulthood. Service providers and directors of community-based programs in six of the cities will subsequently give their perceptions of the crisis among black male youths, and policymakers, members of the clergy, and representatives of black civic and social groups will assess the services available to black men. Finally, the staff will conduct case studies in these same cities to determine ways to deliver services effectively to this high-risk population and will conduct focus group sessions with young black men enrolled in some of the youth-serving programs. Results of the study and recommendations for new approaches to the protection of black male children will be presented in publications and at field-level and national conferences. The project is also supported by the AT&T Foundation.

Urban Institute — $269,000

In early 1990, Governor Lawton Chiles of Florida, then director of the Collins Center for Public Policy of Florida State University, organized a series of seminars and a retreat for a bipartisan group of U.S. senators and representatives and scholars to examine a broad range of issues affecting the condition of the nation's young. Follow-up meetings on early childhood programs and adolescent health problems were later held in Washington, D.C. This one-year grant supported a second round of meetings organized by the Urban Institute, which selected the scholars to prepare background papers. Among the subjects covered were the tax

treatment of families with children and the use of incentives in educational systems. Isabel V. Sawhill, senior economist at the institute, provided overall direction and worked with a bipartisan steering committee.

George Washington University — $150,000

The National Health Policy Forum of George Washington University makes the results of nonpartisan health-related research and analysis available to policymakers in Washington, D.C., through seminars and sponsored site visits. The forum offers congressional, White House, and executive agency specialists in health affairs access to knowledgeable persons elsewhere in government and in the health professions, business, labor, academia, and consumer organizations. Two previous Corporation grants enabled the forum to conduct a series of policy seminars on the problems of at-risk children and youth. Over the past two years, the forum has organized seminars on such topics as the future of Head Start, the growth of school-based health services, the spread of AIDS among adolescents, and the quality of child care programs for disadvantaged children. This grant extends the Corporation's support another two years toward the seven or eight seminars to be held each year. The William T. Grant Foundation, the Smith Richardson Foundation, and the Foundation for Child Development are also supporting the series, which is supervised by Judith Miller Jones, director of the forum.

American Forum — $120,000

The American Forum, based in Washington, D.C., sets up and collaborates with state editorial boards of ten to forty volunteers to improve the quality of media reporting on issues of important state and regional concern, especially pertaining to children and families. Currently the forum operates only in the South. A state board identifies a topic and asks an expert to write an article about it containing facts and other research-based information pertinent to the state. Forum staff members edit and format the article for distribution to newspapers and radio and television stations. The materials are used by up to 50 percent of these outlets as guest editorials or public service announcements. The information is then available for legislators, school and health officials, parents, or advocacy organizations to use in arguing for policy or funding changes. Under this two-year grant, the forum is producing and distributing forty state articles on family and children's issues and is increasing to eleven the number of southern states where it operates. Also funding the forum are the Edna McConnell Clark and Mary Reynolds Babcock foundations.

Discretionary grants

Action for Children's Television, toward educational materials about the Children's Television Act of 1990	$10,000
American Academy of Arts and Sciences, for planning a study of the future of American television	$25,000

Center on Addiction and Substance Abuse, for planning an institute on addiction and substance abuse	$25,000
Hacer Hispanic American Career Educational Resources, toward completion of curriculum materials for mentoring programs by the Hispanic Women's Center	$10,000
Harvard University, for dissemination of a paper on reform of the human service system affecting children in poverty	$10,000
Harvard University, toward a symposium on public school finance reform	$10,000
Harvard University, toward research and writing by Arnold S. Relman on health care policy	$25,000
Johns Hopkins University, for estimating the social and health impact of national economic changes on children and youth	$25,000
Minority Health Professions Foundation, toward papers on the prevention of youth violence in minority communities	$15,000
National Council for Families and Television, toward a conference on "The American Parent"	$25,000
New York University, as a final grant toward research on the developmental pathways of high-risk adolescents	$25,000
San Francisco Foundation, as a final grant toward research and writing on drug addiction by Avram Goldstein	$25,000
Stanford University, for research and writing by Eleanor Maccoby on gender and relationships	$25,000
21st Century Commission on African American Males, toward a national conference on young black males	$25,000
University of California, Irvine, toward an education symposium honoring Clark Kerr	$25,000

Strengthening Human Resources in Developing Countries

The grant program on Strengthening Human Resources in Developing Countries has the general aim of expanding indigenous ability to identify and solve social and economic problems. It operates on the premise that scientific research offers knowledge and technologies that can help societies achieve sustainable development. The program focuses on the countries of Africa and the Caribbean that are now or were formerly part of the British overseas Commonwealth. A small number of grants is also being made for projects in Mexico.

There are five areas of concentration: science and technology for development, maternal and child health, health and human behavior, South African development, and public understanding of development. Across all these areas, the program fosters a multidisciplinary approach to the analysis of development issues, drawing also on the knowledge, skills, and resources of the technical and policymaking communities in the developing and developed countries. Grants are made to strengthen the capacity of scientists and policymakers in the regions of interest to analyze national and regional needs; to enhance the capacity of indigenous institutions to act on the results of such analyses; and to encourage policies that support the conduct of research and the use of research results. The Corporation seeks to collaborate with other donors in order to ensure the impact and sustainability of its efforts.

In science and technology for development, the program supports research networks in health and technology policy and linkages between policymakers and researchers. Growing attention is given to expediting the flow of information across countries, institutions, and disciplines through the development of science and technology information systems.

In maternal and child health, the program continues to support research and training networks aimed at improving health services to reduce maternal mortality, placing increasing emphasis on the healthy development of adolescent girls.

In health and human behavior, the program addresses the factors that influence girls' and women's health and provides opportunities for international and regional networking in the social sciences and health.

In South Africa, the program will emphasize women's leadership in national and local development efforts and the health of adolescent girls and women.

In public understanding of development, the program supports projects to reach professional and policy communities in the U.S. and countries in which the Corporation is active. Special attention is also paid to enhancing the role of minorities in U.S. foreign policymaking. The Corporation does not fund unsolicited projects in this category.

International Development Research Centre $220,000

With Corporation support, the Commission on Health Research for Development was established in 1987 as an international effort to review the status of health research in and for developing countries. At the formal conclusion of its work in June 1990, a two-year international task force was established to promote its recommendations, with the International Development Research Centre (IDRC) serving as the administering agency. The task force is now working with health researchers and policymakers in developing and developed countries to formulate strategies to foster "essential" national health research in selected countries. It is also establishing linkages with international agencies active in health research and promoting international research that emphasizes specific diseases or health problems of global importance. To date, twenty-seven developing countries have formulated plans for implementing diverse approaches to essential national health research. This two-year grant is enabling the task force to organize national planning meetings in Commonwealth countries in Africa, assess the options for a permanent mechanism to sustain an international focus on essential national health research beyond the task force's lifetime, and publish a newsletter. The results of this work will be presented at an international conference in early 1993. Richard Wilson, M.D., former director of the Health Sciences Division at IDRC, and Raphael Owor, on leave as dean of the School of Medicine of Makerere University in Uganda, cochair the task force, which also receives support from IDRC, the Swedish Agency for Research in Developing Countries, U.S. and European foundations, and bilateral and multilateral technical assistance agencies.

Africa Leadership Foundation $200,000

The Africa Leadership Forum was established in 1988 by the Africa Leadership Foundation to address long-term, endemic problems impeding African development, to strengthen leadership and cooperation in the search for national and regional solutions, and to nurture a new generation of capable, innovative leaders. The forum holds annual international meetings of key African and non-African leaders in government, business, academia, the military, and other fields. These cover such regional concerns as democracy and governance in Africa; the impact of developments in Eastern Europe on Africa; population, environment, and climatic change; agricultural production and food scarcity; and economic reform. The forum also convenes a series of smaller, less formal dialogues in Africa every six to eight weeks on issues related to leadership, education, youth, communications, labor, health, and women. A similar mechanism is being developed in Zimbabwe, where a chapter of the forum has been founded. Reports of the meetings and dialogues are circulated to governments and libraries throughout the world, and a selected number will be published in book form. Olusegun Obasanjo, former head of state of Nigeria, chairs the forum. This grant renews Corporation support for another year. The United Nations Development Program, the Rockefeller and Friedrich Naumann foundations, and private donors also contribute.

Institute of International Education $375,000

The International Health Policy Program (IHPP) was organized in 1986 by the Pew Charitable Trusts, the World Bank, and the World Health Organization to encourage the more effective allocation of developing countries' scarce resources for the improvement of health care. IHPP provides grants and technical support to selected governmental and nongovernmental institutions for conducting research in health policy. A series of IHPP grants has helped establish a network of teams comprising representatives from ministries of health, universities, and other institutions in Asia and Africa who work together on studies of practical value. The Corporation has supported IHPP programs in four African countries: Kenya, Nigeria, Tanzania, and Uganda. Each emphasizes the production of high-quality empirical analyses by the teams and the use of such analyses in strengthening the effectiveness of health policies. Under previous grants, IHPP has also conducted workshops and annual meetings involving all the regional research groups. A mid-course evaluation of IHPP's work recommended closer links among the research teams; long-term capacity development; and representation from a wider range of disciplines in IHPP-supported programs. This three-year additional grant joins major support from the Pew Charitable Trusts for continued program development and support activities in Commonwealth sub-Saharan Africa, including more attention to IHPP's networking and institution strengthening. Davidson R. Gwatkin is IHPP director. The Institute of International Education is the fiscal agent for IHPP.

Harvard University $345,000

The Takemi Program in International Health was established in 1983 at the Harvard School of Public Health by two private Japanese companies. The program, which seeks to improve health services in developing countries, provides ten-month fellowships at Harvard for leading health professionals and scholars from developed and developing countries. These fellowships offer the scholars uninterrupted time in which to conduct research projects linked with health policy reforms in their home countries. The program also provides visiting professorships for senior, highly experienced individuals in the health field. Once the fellows and professors have returned to their home countries, the program helps keep them informed about one another's work through newsletters. Since 1984, forty-seven fellows from twenty-six countries have participated. Ten have come from African countries, five of them supported by a previous Corporation grant. This three-year grant is supporting seven more fellows, who are concentrating on policy issues in maternal and child health and women's health and development. It is also covering the program's continued networking activities and is creating short-term visiting professorships. Academic guidance is provided by Lincoln C. Chen, the first Dr. Taro Takemi Professor in International Health at Harvard. Michael R. Reich is executive director. Also supporting the program are the Japanese Institute for Seizon and Life Sciences, Harvard University, the Ford Foundation, the United Nations Development Programme/World Bank/World Health Organization Special Programme

for Research and Training for Tropical Diseases, the American Leprosy Mission, and the International Development Research Centre of Canada.

American Association for the Advancement of Science

$107,000
$200,000

At its 1991 annual meeting in Washington, D.C., the American Association for the Advancement of Science held a symposium, "Science in Africa: Accomplishments and Prospects," which highlighted research conducted by African scientists that has made an impact on African development or is relevant to scientific progress in general. Nine scientists made presentations in two key areas: biomedical research on parasitic and noncommunicable diseases and engineering research on the productive use of natural resources. A six-month grant from the Corporation and funds from the Smithsonian Institution supported the symposium, which was cochaired by Thomas R. Odhiambo, president of the African Academy of Sciences, and Walter E. Massey, past president of the association. Two more symposia concerning the role of science in Africa are now planned. The first, to be held at the February 1992 annual meeting of the association in Chicago, will focus on setting research priorities in Africa and will include presentations by senior African scientists. The second, which is scheduled for April 1992 in Washington, will explore the role of African universities in fostering science and technology for development. A volume containing the papers of African participants and commentators will be produced and subsequently disseminated to the international scientific community, the association's membership, and policymakers in the capital. A second grant for one year is supporting planning for the meetings, the preparation of case studies on African university experiences in science and technology for development, and the meetings themselves. Amy A. Wilson directs the sub-Saharan Africa program.

Fundación Mexicana para la Salud

$600,000
$125,000

In the industrializing nations, the financing of research in science and technology depends mainly on government and industry support, supplemented by grants and contracts from bilateral and multilateral donors and foreign private foundations. The absence of an internal tradition of foundations for philanthropic purposes means, however, that some worthwhile scientific pursuits may be insufficiently funded or not supported at all. The Fundación Mexicana para la Salud, or Mexican Health Foundation, was founded in 1985 to mobilize private funding for health research and to facilitate the discovery and application of new scientific knowledge and appropriate technology toward improving the health of Mexican people. With an independent governing council whose members are drawn from a broad range of disciplines, the foundation now receives broad multisectoral support. A 1987 Corporation grant funded twelve research projects in maternal and child health, enabled eight Mexican health scientists working abroad to return to Mexico, and persuaded nine doctoral students studying outside Mexico to select a Mexican problem as their thesis subject and write it in Mexico. It also

supported a feasibility study that led to the creation of a postgraduate epidemiology course in the School of Public Health of Mexico. A three-year grant from the Corporation is providing continued support to the foundation for maternal and child health research, for the continued attraction, development, and repatriation of Mexican scientists, and for publications and core operations. During this time, the foundation will define its own philanthropic program. An additional three-year grant is enabling the foundation to establish a planning and development unit. Under the direction of José Cuauhtemoc Valdes-Olmedo, an operations research and applied mathematical systems expert, the unit is pursuing a number of strategies to strengthen its institutional capability, including staff development, administrative and program support, and record-keeping. The unit will begin to document the foundation's experiences as a new model for philanthropy in developing countries for possible adaptation elsewhere. It is also promoting the foundation's interaction with other philanthropic institutions in Mexico, the national scientific community, and non-Mexican foundations in health-related fields. Guillermo Soberón, M.D., formerly Mexico's minister of public health, is executive president.

Commonwealth Caribbean Medical Research Council — $250,000

The Commonwealth Caribbean Medical Research Council is the regional institution for setting research priorities and developing collaborative research efforts in consultation with Caribbean countries' ministries of health, which have largely financed it. In recent years, however, financial constraints imposed on the ministries have sapped the council's funding and diminished its effect. Under a prior Corporation grant, council members, led by chairman Sir Kenneth Stuart and director of research David Picou, consulted with representatives of national health organizations in the United States, Canada, and the United Kingdom to develop a plan to strengthen the council's promotion of research and to increase its budget. This three-year grant is enabling the plan to be implemented. While maintaining the council's central objective to harness the region's health research capabilities to respond to health priorities, council members are also planning to establish collaborative research linkages within and outside the Caribbean, set up a regional research data base, and encourage research and training in epidemiology and health-related social sciences. In addition, the council will be restructured on the basis of recommendations to be made by regional institutions, health research ministries, and health researchers.

University of Ibadan — $200,000

Recognizing that advances in scientific knowledge are crucial to national economic growth, developing countries are seriously considering investing in science and technology information systems to promote economic and social development. Under a 1989 planning grant from the Corporation, a research team from the University of Ibadan met with specialists in science and technology information systems in the United Kingdom, Canada, and the United States to assess the state of the field and to select the necessary hardware and software for eventual

installation in research institutions in Nigeria. The team is now in the process of developing a prototype for a comprehensive science and technology information system for the country. Installed at the University of Ibadan, the system consists of scientific literature data bases and the hardware and software for computer networking. It will first connect to research centers and government agencies within the country; ultimately it will be linked to data bases around the world. This two-year grant is contributing to the development of a prototype data base in the basic and applied sciences in Nigeria. The data base will contain local and international bibliographic information on development. The grant is also contributing toward the development of the operational information system and toward communication with other institutions developing data bases to ensure compatibility of the systems. Gabriel B. Ogunmola, former dean of the Faculty of Science at the university and now a professor in the Laboratory of Biophysical Chemistry, and T. Olabisi Odeinde, former university librarian, direct the research team.

University of Zimbabwe — $80,000

According to both librarians and researchers, a new information and communication technology that uses compact disks to store large quantities of bibliographic material can profoundly improve access to timely information. Called CD-ROM (compact disk for read-only memory), the technology is low-cost, easy to use, and durable; it has substantial storage potential and bypasses telephone communications problems. Under a 1988 grant from the Corporation, Helga Patrikios, chief medical librarian at the University of Zimbabwe Medical Library, established CD-ROM capacity at the library, significantly enhancing staff members' ability to supply information to users. This grant continues the Corporation's support for another thirty-one months, enabling the library to subscribe to MEDLINE — the computerized index to 3,500 of the world's major medical and health science journals — and to enhance the librarians' workstation. The grant also contributed to the costs of a workshop on the uses of microcomputers for information services and a "MEDLINE on CD-ROM" demonstration, organized by the library at the July 1991 meeting of the Association for Health Information and Libraries in Africa, in Harare, Zimbabwe.

Centre for Our Common Future — $250,000 / $50,000

The World Commission on Environment and Development, chaired by Gro Harlem Brundtland, prime minister of Norway, was formed in 1983 by the United Nations General Assembly to examine the effects of development on the environment, to propose new forms of international cooperation in that area, and to raise the levels of understanding and commitment on environmental issues by individuals as well as governments and nongovernmental organizations. Following publication of the commission's 1987 report, *Our Common Future*, the Centre for Our Common Future was established in Geneva to promote the commission's recommendations through a program of information collection and dissemination. A two-year grant to the

center continues the Corporation's support. The funds are helping nongovernmental organizations in Africa and the United States prepare for the United Nations Conference on Environment and Development in June 1992 in Brazil. The conference, "The Earth Summit," will advance the concept of sustainable development from theory to political action. The grant is also contributing toward publication of the *Brundtland Bulletin*, a quarterly document that summarizes local, regional, and international environmental activities. A fund-raising strategy has been designed to obtain government, corporate, and other foundation support for the full range of conference preparatory activities, including public forums, a newsletter, and efforts to ensure regional representation of nongovernmental organizations. At the request of the conference's secretary-general Maurice Strong, Brundtland is reconvening a special session of the commission to identify priority issues for action. A ten-month grant is enabling the center to organize the special session, prepare background papers, and publicize its concluding statement. Warren H. Lindner, former secretary of the commission, directs the center, which is also supported by the Ford Foundation and several European foundations and bilateral agencies.

Discretionary grants

Abubakar Tafawa Balewa University, for a workshop on science and technology information systems	$21,000
African Academy of Sciences, toward consultations on the feasibility of a foundation for science and technology in Africa	$25,000
African Regional Centre for Technology, toward a guide to directories on science and technology in Africa	$25,000
Fundación Mexicana para la Salud, for planning a planning and development unit to strengthen institutional philanthropy in Mexico	$25,000
Harvard University, toward South African participation in the Edward S. Mason Program in Public Policy and Management of the John F. Kennedy School of Government	$18,350
National Institute for Medical Research, toward a conference on health research priorities in Nigeria	$25,000
Nigerian Institute of Social and Economic Research, for research on technology and poverty among women in rural Nigeria	$11,000
Nigerian Institute of Social and Economic Research, for research on the impact of irrigation technology on women in rural Nigeria	$14,200
Obafemi Awolowo University, for a study of technology and urban women in the informal sector in Nigeria	$13,500
Obafemi Awolowo University, for research on female-owned small enterprises and technology in Nigeria	$13,000

Overseas Development Council, toward research and education on the federal budget for international affairs	$25,000
University of Botswana, for research on appropriate technology for irrigation in Botswana	$16,300
University of Dar es Salaam, for research on the impact of international technical assistance on agriculture in Tanzania	$13,000
University of Dar es Salaam, for research to improve food self-sufficiency in Tanzania	$15,000
University of Ibadan, toward a symposium on molecular biology and human diseases	$25,000
University of Ibadan, toward planning the 1991 World Conference on Comparative Adult Education	$25,000
University of Lagos, toward the dissemination of a book on science and technology education in sub-Saharan Africa	$15,000
University of Pennsylvania, toward an international conference on literacy and postconference activities	$25,000
University of Science and Technology, Kumasi, Ghana, for research on the barriers to technological innovation in food oil processing among women in Ghana	$12,100
University of Sierra Leone, for developing a national science and technology information system	$25,000
University of Sierra Leone, for research on technological innovation in fish processing by women in Sierra Leone	$18,200
University of Sierra Leone, for research on the effectiveness of agricultural research and extension in Sierra Leone	$19,000
University of Swaziland, for research on farmers' perceptions of technological advancement in rural Swaziland	$6,000
University of Zambia, toward a review of the technological capabilities of the health sciences libraries in Zambia	$7,500
Zimbabwe Institute of Development Studies, for a study of the impact of technology transfer on agriculture in Zimbabwe	$16,000

Maternal and child health

World Health Organization — $323,000

Corporation grants have enabled the World Health Organization (WHO) to carry out programs in four African countries — Ghana, Nigeria, Zambia, and Zimbabwe — to improve the health and income of very poor rural women. After local

researchers conducted village-level surveys to identify the most vulnerable women, project teams were organized, first to run classes that teach the women to read using materials with information on health and economic activities, then to help them pursue income-generating projects. In Ghana, functional literacy classes have been going on since 1989, and plans are to assess how the women's new literacy and numeracy skills are being used to improve their health and their managerial skills and to determine the prospects for establishing solid local financing systems. Similar evaluations are intended for the other programs when they are further along. An intercountry meeting on the policy implications of the projects was held in Ghana in 1991, attended by staff of the ministry of health and other policymakers. This grant covered each country's costs for an additional year, paying for the establishment of local assessment systems, for local financing options, and for the meeting in Ghana along with dissemination of the meeting's results. The WHO program, directed by Aleya Hammad and Catherine Mulholland since its inception in 1987, is expected to produce information and strategies that can be used to improve women's health and economic well-being elsewhere in Africa as well.

International Women's Health Coalition — $300,000

The International Women's Health Coalition, which now has an international membership of more than 2,000 health professionals and advocates, was founded in 1980 to provide financial and professional support to organizations committed to meeting the reproductive health needs of women in developing countries. It also supports research, improved program management, and policy development in reproductive health. The coalition's efforts centered in Asia and Latin America until 1988, when Corporation grants supported the initiation of a program in Nigeria. In the succeeding two years, the coalition helped stimulate and support the establishment of the Women's Health Research Network in Nigeria. The network is composed of academics, professional women, and community leaders who promote action research on women's health, policies to improve health care and the utilization of services, and information about unsafe traditional practices. The coalition also sponsored the collection and analysis of information on important aspects of reproductive health about which knowledge is scanty and fragmented. This two-year final grant is permitting the coalition to consolidate its work with Nigerian women's organizations under the direction of sociologist Adrienne Germaine. In addition, the coalition is working on behalf of an International Day of Action for Women's Health and communicating with women's groups in the United States that are working on women's issues in Nigeria.

World Health Organization — $250,000

Corporation support in 1987 and 1988 funded elements of the Safe Motherhood Initiative, a worldwide education and advocacy program led by the World Health Organization (WHO) and other international agencies to reduce the illness and death of women due to complications of pregnancy and delivery. An estimated 500,000 pregnancy-related deaths and disabilities occur annually in developing

countries. Under the grants, WHO has publicized the nature and determinants of maternal morbidity and mortality to policymakers, journalists, and the general public by such varied means as a multilingual press kit, an educational computer disk, a videotape, and a quarterly newsletter. It has produced training materials for nurses, midwives, and other health practitioners and evaluated curricula and training programs. And it has managed a task force to promote operational research on maternal health care in collaboration with the International Federation of Gynecology and Obstetrics, disseminating the results to professional obstetric and gynecological societies and journals. This two-year grant is supporting the continued work of the task force, which covered the organization of a preconference workshop on women's concerns at the time of the XIIIth World Congress of Obstetrics and Gynecology, held in September 1991 in Singapore. The grant is also for the development of materials, guidelines, and national support for the training and reorientation of health workers for essential obstetric care. Angela Petros-Barvazian, M.D., director of WHO's Division of Family Health, is principal investigator.

Paramedical School, Sierra Leone — $152,400

Significant numbers of pregnant women in developing countries die or become permanently incapacitated each year from the combination of inaccessible health services, women's low social and legal status, and adverse economic conditions. Other grants from the Corporation have supported Columbia University's Center for Population and Family Health, which is attempting to lay the groundwork for improved maternal health care throughout sub-Saharan Africa. Several years ago the center began recruiting and offering technical assistance to eleven teams of researchers from Ghana, Nigeria, and Sierra Leone. The teams, each of which includes at least one obstetrician, public health specialist, social scientist, and nurse-midwife, have identified the most pressing maternal health problems and the barriers to obstetrical care and are now designing projects to ameliorate them. With a planning grant from the Corporation, a network team from Sierra Leone's Paramedical School studied six chiefdoms in the Bo district and found that the major cause of maternal mortality is obstructed labor — delay in an infant's passage through the birth canal. Mothers under age fifteen and women whose physical development has been stunted by childhood malnutrition are particularly susceptible to this complication. Early recognition of the problem and timely intervention can save both mother and child. The researchers also found that the factors influencing utilization of available obstetric care include time spent undertaking traditional remedies; husbands' refusal to permit the use of medical care; costs of treatment, drugs, and transportation; and difficulty obtaining blood donors. Other serious obstacles include the inaccessibility of modern health facilities; shortages of health center staff, supplies, equipment, and drugs; and the lack of a blood bank. This twenty-seven-month grant is allowing the team to test such interventions as group education sessions, training for traditional birth attendants, formation of village committees to institute revolving funds, and the use of motorcycles to ease transportation to and communication with health centers.

University of Benin Teaching Hospital $165,000

A prior Corporation grant enabled Columbia University's Center for Population and Family Health to establish a community-based operations research network aimed at developing effective, sustainable, and replicable programs to reduce maternal mortality in West Africa (see grant to Sierra Leone's Paramedical School). Member institutions are attempting to understand the interacting cultural, economic, social, and geographic barriers to the prompt emergency treatment of obstetric complications and to develop remedies. With a planning grant from the Corporation, a network team based at the University of Benin Teaching Hospital studied the town of Ekpoma and thirteen outlying villages and found hemorrhage to be the most common obstetric complication leading to death. According to the team, particularly serious barriers to the utilization of obstetric care include scarce and costly transportation, delays caused by the absence or unavailability of doctors, confusing and time-consuming bureaucratic procedures, and unpleasant behavior of medical staff. This three-year grant is allowing the team to test interventions to correct deficiencies in health center supplies, equipment, and staffing; to organize a feasible transportation system; and to offer community education sessions and refresher courses for traditional birth attendants.

University of Ghana Medical School $150,000

Under a prior Corporation grant, a multidisciplinary research team based at the medical school in Accra, Ghana, established by Columbia University's Center for Population and Family Health (see grant to Sierra Leone's Paramedical School) found obstructed labor to be the principal cause of maternal mortality. In addition, the researchers learned that the most serious barriers to the utilization of obstetric care are the scarcity and high cost of transportation, a result of the region's topography and climate; the insensitivity of medical practitioners; and community beliefs, perceptions, and practices. This three-year grant is supporting interventions to remedy these problems. In a suburb and a rural area the team is undertaking an intensive program to alert women to the possible complications of labor and referring them to services. It will offer refresher courses for midwives and traditional birth attendants and try to ensure that referral hospitals have the necessary equipment and essential drugs for emergency care. In the suburban district, a principal strategy is to improve the communications and transportation systems so that women developing complications can be rapidly transferred to the nearest health facility for skilled intervention. In the rural area, the team is establishing a maternity waiting home near the district hospital to accommodate women toward the end of their pregnancy. John B. Wilson, head of the university's department of obstetrics and gynecology, is directing the effort, which is expected to result in development of a model program of interventions that can be applied elsewhere in Ghana.

University of Science and Technology, Kumasi, Ghana $165,000

Since 1988 a research team from the School of Medical Sciences of the University of Science and Technology has been studying the problem of obstetric hemorrhage

in rural Ghana. As part of a network of operations research for the prevention of maternal mortality coordinated by the Center for Population and Family Health at Columbia University (see grant to Sierra Leone's Paramedical School), the team is working in two rural health districts in the Ashanti region. Under this three-year grant the team is applying the findings, obtained from a prior Corporation grant, on barriers to obstetric care to conduct three levels of practical intervention to improve midwifery services and reduce morbidity and mortality due to hemorrhage. At the community level, team members are teaching community members about obstetric hemorrhage, encouraging pregnant women to use maternal health services, mobilizing voluntary blood donors, and testing innovative ways of transporting women to referral centers. At local maternity and health centers, they are conducting continuing education programs for traditional birth attendants, nurse-midwives, and other caregivers at local maternity and health centers. At district and teaching hospitals, they are ensuring that health institutions are furnished with emergency equipment and drugs and are upgrading transfusion services to ensure an adequate, safe supply of blood. Josiah O. Martey, chair of the department of obstetrics and gynaecology, leads the research team.

University of Malawi **$47,000**

The complex relationship between maternal and child nutrition is the focus of a longitudinal study conducted since 1986 by the Centre for Social Research of the University of Malawi and Cornell University in cooperation with the Malawi Ministry of Health. Its aims are to determine the causes and consequences of malnutrition and food insecurity in the northern area of the country and to guide policymakers and planners in the design of programs to ameliorate these serious problems. Through information gathered from a survey of nearly 1,000 households in three northern Malawian districts, the local researchers, under the supervision of center director Louis A. H. Msukwa, have generated a wide range of socioeconomic, agricultural, and ecological information about pregnant and lactating women, infants, children, and men. In the course of analyzing the data, the investigators have also trained local university and secondary school graduates to serve as research supervisors and managers, enumerators, and data processors. Under this eight-month grant, building on previous Corporation support for the study and for training, staff members from the center are establishing a network of data analysts from the university and government who will be trained to apply the study data in their work. They are also planning a national symposium in 1992 to disseminate the study's findings to senior government officials and representatives of donor organizations. Other funders of the project in its various stages include the World Health Organization, the International Development Research Centre of Canada, and the United Nations Children's Fund.

American College of Obstetricians and Gynecologists **$30,000**

Under the leadership of executive director Warren H. Pearse, the American College of Obstetricians and Gynecologists (ACOG) is increasingly sharing its knowledge

and experience with medical groups in developing countries. To update the examination system for certifying obstetricians in West Africa, ACOG-provided resource persons are working with the institutions that direct and accredit postgraduate training, the Nigerian Postgraduate Medical College and the West African College of Surgeons, to identify the strengths and weaknesses of current examination methods and help the two colleges devise and test appropriate solutions. It is also strengthening the capability of the local examining boards to make sure the examinations they conduct are suitable and fair. In a second project, ACOG is working with the Nigerian college and the Society of Gynaecology and Obstetrics of Nigeria to promote continuing education programs in obstetrics for general medical practitioners, on whom traditional birth attendants and nurse-midwives often rely for guidance and intervention in difficult cases. ACOG consultants are providing support in designing curricula, in developing teaching methods and techniques for monitoring and evaluating the courses, and in distributing learning materials that can be modified for local faculties in Nigeria. The Corporation made a planning grant to ACOG in 1989 to explore the possibility for collaboration with key Nigerian organizations. This grant supports a trial period for one year to define more closely the content and mechanisms of the collaboration.

Family Care International — $146,000

Since 1987, Family Care International has been at the forefront of development organizations advocating the formulation of programs and policies to ensure safe motherhood in Africa and other parts of the developing world. Its small core staff, headed by Jill W. Sheffield, works with international experts to help African and Caribbean governments and nongovernmental organizations design, manage, implement, evaluate, and disseminate the results of safe motherhood projects. This two-year grant is enabling Family Care to develop two types of documents aimed at supplementing the information gained and compiled from these projects: a kit of training materials for program managers and information booklets on different aspects of reproductive health for adaptation to country needs. Family Care is also helping organizations in the Caribbean mobilize support for improved reproductive health. Among other efforts, it plans to organize with Caribbean colleagues a conference of parliamentarians about safe motherhood. Family Care received earlier support from the Corporation for its work in organizing two conferences about safe motherhood and for a survey of African nongovernmental organizations concerned with improving women's health.

Pan American Health Organization — $75,000

The United States-Mexico border is the world's longest border between an industrialized and an industrializing country. On both sides, birth and disease rates are high, and per capita income is low. Many young women work in factories under hazardous conditions, and a disproportionate number of adolescents use drugs or alcohol, become pregnant, or meet violent deaths. Prior Corporation grants supported the Pan American Health Organization's research, education, and training project, which has been concerned with ways to improve maternal, child, and

adolescent health along the border. The project is expected to provide an important body of information about the specific factors on each side of the border that influence health-related behaviors and health outcomes and lead to the establishment of community-based interventions as well as cross-border policies and joint programs that make better use of resources. This ten-month grant is enabling PAHO to organize a two-day symposium to be held in El Paso for health care providers, public and private agencies, foundations, and policymakers from both sides of the border. Its purpose is to report the results of the project and their policy implications and discuss suitable follow-up activities. A meeting summary will be disseminated to symposium participants and other individuals and organizations interested in improving the health of border residents.

Africare — $193,000

Africare was founded in 1971 at the height of the Sahel drought to promote self-development in rural Africa. A nonprofit nongovernmental agency with headquarters in Washington, D.C., Africare maintains field offices in seventeen countries, where it works closely with host-country agencies and communities in the design and support of its programs providing emergency relief, health care, literacy, job skills, and other rural development schemes. In 1987 the Corporation made a grant enabling Africare to incorporate maternal health services into its child survival project in Imo State, Nigeria. In 1990 it provided additional funds for Africare to develop plans for strengthening its maternal health activities. Under this two-year grant, project staff members are continuing this effort on behalf of women, especially pregnant women, in the state. Africare's aims are to raise their awareness of maternal and child issues and encourage them to use maternal health services in the community. Africare will work to expand the functions of village health workers to include education about maternal health and facilitate the continuing education of nurses and midwives. Among Africare's targets for the end of the grant period are increases in the number of women who enroll at prenatal clinics by the end of the first trimester of pregnancy, in the number of children delivered under the supervision of trained health personnel, and in women's use of family planning services. Chibuzo L. Oriuwa is project director.

Discretionary grants

American College of Nurse-Midwives, toward participation by Joseph Taylor in the IVth International Congress for Maternal and Neonatal Health and the XIIIth World Congress of Obstetrics and Gynecology	$2,640
Defense for Children International–USA, for dissemination of *The Effects of Maternal Mortality on Children in Africa*	$23,000
International Federation of Gynecology and Obstetrics, toward West African participation in a precongress workshop at the XIIIth World Congress of Obstetrics and Gynecology	$25,000

International Women's Health Coalition, toward reprinting and distributing of a special issue of the *International Journal of Gynecology and Obstetrics* on the impact of unwanted pregnancy on the health of women in developing countries $20,000

Nursing and Midwifery Council of Nigeria, for planning continuing education courses for nurse-midwives $25,000

University of Bristol, toward data analysis of a study of pregnancy-induced hypertension in selected countries of Africa and Asia $23,500

University of Michigan, toward planning a vesicovaginal fistulae intervention project in West Africa $25,000
$25,000

Women's International Public Health Network, for a special newsletter issue about maternal health $19,200

Health and human behavior

World Health Organization **$250,000**

In 1985 the Corporation awarded a grant to the World Health Organization (WHO) to undertake a long-term program of research and training in biobehavioral sciences and mental health within the Division of Mental Health. The program is designed to support other technical programs within WHO by adding a behavioral and psychosocial dimension to their activities. Under the direction of Norman Sartorius, director of the division, WHO staff members have given presentations at scientific meetings, prepared critical reviews and conducted research on key problem areas, and established a behavioral science forum and a network of collaborating centers to support WHO's research and training programs. With this two-year grant, WHO is developing or carrying out projects that will establish measures and interventions to improve the quality of life of certain vulnerable or disadvantaged groups; devise interventions to improve the psychosocial development of children and adolescents; formulate techniques for teaching health workers how to apply behavioral approaches to health problems; develop patient-centered health interventions that consider the traditional beliefs of the population served; and initiate a network of experts and institutions working on psychosocial aspects of health.

Discretionary grants

African Academy of Sciences, toward planning a research grants program in female education in Africa $20,000

African Medical and Research Foundation, toward an assessment of a program on nonformal health education in eastern and southern Africa $25,000

Harvard University, toward a collaborative training program with African institutions in health and behavioral research $11,500

University of California, San Francisco, toward planning an international health social science organization $25,000

University of Dar es Salaam, for an interdisciplinary program in social science and medicine $25,000

University of Nairobi, for an interdisciplinary program in social science and medicine $25,000

South African development

The Aspen Institute **$300,000**

In 1984 the Corporation gave the Aspen Institute funds to establish a program offering a bipartisan congressional group sustained, intensive exposure to high-quality scholarship concerning U.S. relations with the Soviet Union. That program, led by former Senator Dick Clark, served as the model for the institute's Southern Africa Policy Forum, which was founded in 1988 with Corporation funds and is also directed by Clark. Clark served on the U.S. Senate's Committee on Foreign Relations, heading its subcommittee on Africa. This experience provided him with a strong base of knowledge about southern Africa. The forum organizes major conferences at which members of Congress and experts on African issues from the United States, Europe, and southern Africa are able to discuss issues relating to southern Africa. The conferences are buttressed by periodic breakfast meetings that focus on special topics. Legislators who are interested in participating agree to attend at least one or two conferences over a period of several years. This one-year renewal grant enabled the forum to hold a major conference in 1991 in South Africa, which examined the needs and problems in that country following the end of apartheid.

Institute of International Education **$125,000**

In 1989 the Corporation and the Ford Foundation awarded grants to the Institute of International Education to offer individuals and organizations concerned about South African issues the consulting services of J. Wayne Fredericks, an authority on relations between the United States and southern Africa. In a career that spans more than forty years, Fredericks has led various foreign programs of the Ford Foundation, served as U.S. Deputy Assistant Secretary of State for African Affairs, and directed international relations for Chase Manhattan Bank and the Ford Motor Company. In 1990 Fredericks was among the first Americans to meet with Nelson Mandela after his release from prison. In addition to assessing political, economic,

and educational developments in South Africa, he briefs leaders in government, education, and business in the U.S. and southern Africa, counsels South African organizations about how to operate or seek assistance in the United States, and organizes conferences and seminars on the policies of industrialized nations toward South Africa. Fredericks contributes regularly to the work of the institute, especially to its South Africa programs. This two-year grant renewal is matched by a grant from the Ford Foundation.

University of Cape Town — $49,000

The large cohort of disaffected, highly politicized youths who have dropped out of the educational system and mainstream society in South Africa threaten the chance for successful change there. Recognizing the potential this situation poses for destructive conflict, Mamphela A. Ramphele, a senior social science and health researcher in South Africa, is studying adolescents, particularly black children and youth, in the urban areas and townships. Drawing on knowledge from social anthropology, biomedicine, and psychology, Ramphele is examining the health status of these young people, assessing their educational, social, and other achievements, and identifying high and low achievers, survivors, and nonsurvivors. Her research is expected to contribute to the development of comprehensive intervention strategies to help high-risk youth. Under a fifteen-month grant from the Corporation, she is consolidating this work with her other studies of South African children and older adolescents and is exchanging ideas with researchers working on this topic in other African countries, especially Zimbabwe, which faced problems in reintegrating militarized and politicized youth after independence.

Educational Opportunities Trust — $100,000

The Educational Opportunities Council, the program arm of the Educational Opportunities Trust, was founded in South Africa in 1981 to select black South African candidates for university study in the United States under a scholarship program organized by U.S. foundations, corporations, and universities. Now firmly established as the major black-led national scholarship selection mechanism in South Africa, the council administers a range of degree- and nondegree-granting fellowship programs supported by private and public donors in the U.S. and Europe. The Corporation has supported the council since its inception in recruiting and selecting candidates for the Career Development Fellowship Program, which the council runs jointly with the University of California and the Institute of International Education. To date more than 100 fellows have completed the program; they are now back in South Africa and form a pool of trained black leaders who can participate in the restructuring and development of their country. This grant provides support for two final years. During this time the council is seeking to build the nation's capacity for local training, the expansion of which is likely to lessen the need for overseas training. The Charles Stewart Mott and Kellogg foundations also support the program.

Institute of International Education $80,000

The Career Development Fellowship Program of the Institute of International Education offers black South Africans the opportunity for university-level study in the United States. Staff members of the program work with the institute's South African counterpart, the Educational Opportunities Council, to place black professionals in American universities, historically black colleges, and junior and community colleges. The council selects established leaders of such South African organizations as churches, trade unions, alternative education coalitions, professional associations, and intermediary agencies that provide support services to local communities. The institute is also planning to help organize an alumni component that would enable fellows to collaborate on their return to South Africa. The Corporation has supported the fellowship program since its inception in 1986. The fellows are studying with faculty mentors at various colleges and universities across the United States in fields that include agriculture, business, community organizing, counseling, health, journalism, library science, and social work. The Ford Foundation and the Charles Stewart Mott Foundation also support the program.

Institute of International Education $65,000

In 1986, funds from the Corporation and the Ford Foundation enabled the Institute of International Education to establish the South African Information Exchange, a clearinghouse of information about educational opportunities for black South Africans. The exchange, which is directed by Ann Micou, maintains a data base of 15,000 organizations, individuals, and program initiatives in the United States and South Africa concerned with improved education for black South Africans. The information is used by academic institutions, foundations, corporations, voluntary organizations, professional associations, public policy groups, churches, and individuals in the United States, Africa, Europe, and Canada. The exchange also publishes working papers on issues relevant to South African education, sponsors public forums, provides technical assistance to educational programs and advice to potential donors, and briefs black South African leaders who are visiting the United States. This grant extends the Corporation's support for another year, during which the institute is exploring with colleagues in South Africa the feasibility of transferring the information exchange to an institution within that country.

National Progressive Primary Health Care Network $200,000

A 1988 Corporation grant supported the work of the National Progressive Primary Health Care Network, which seeks to respond to a perceived gap in the organization and development of primary health care in South Africa. The network is organized into six regions with offices throughout South Africa and four subregions, which devise their own programs in response to local needs. The network concentrates on the socioeconomic factors influencing health and works to involve and empower communities in improving their health and the health care system,

making services more accessible, equitable, and oriented toward preventive primary health care. Members range from university-based researchers who contributed to the Second Carnegie Inquiry into Poverty and Development in Southern Africa to grass-roots health activists striving to integrate community health care into their own rural empowerment efforts. The network has popularized the concept of progressive primary health care so that it is no longer equated with second-class care provided for black South Africans under apartheid. This grant continues the Corporation's support for thirty months, enabling the network to concentrate on three areas: developing training and services; organizing national committee meetings that bring together the national committee and regional coordinators; and conducting workshops and creating resource centers to enhance the effectiveness of the work of the regional coordinators. The project is managed principally by the national executive and national committee members. The Henry J. Kaiser Family Foundation is also funding the network.

International Center of Photography — $44,550

The Second Carnegie Inquiry into Poverty and Development in Southern Africa was initiated at the University of Cape Town in 1982 to examine the nature, extent, and causes of poverty in southern Africa and to stimulate discussion of ways to promote equitable development in the region. The interim report of the inquiry, *South Africa: The Cordoned Heart*, documented the conditions of poverty that afflict black people. The book incorporated photographs selected from a major exhibition at the inquiry's conference on poverty and development, held in 1984 at the University of Cape Town. In 1986 New York City's International Center of Photography, headed by Cornell Capa, launched a two-month exhibit of sixty of the photographs. With subsequent funds from the Corporation, that exhibit, under the center's management, traveled to approximately sixteen sites around the country in four years, reaching several hundred thousand viewers and serving as a highly effective way to disseminate the ideas of the inquiry. This two-year final grant is enabling the exhibit to be placed at approximately eight more sites and to return to New York in 1992.

Worldwide Documentaries — $50,000

South Africa continues to undergo extraordinary changes. The implications for a democratic future of complex developments such as the release of Nelson Mandela from prison, the repeal of two major pillars of apartheid — the Group Areas Act and the Land Act — and other events just as dramatic are to be chronicled in a feature-length documentary film by producer Robert Bilheimer, tentatively titled *Days of Change*. Bilheimer, president of Worldwide Documentaries, a nonprofit film production company, is writing, directing, and coproducing the film with Kevin Harris, a South African filmmaker. Among the topics they plan to explore are the creation of a constitution, the redress of economic injustices and the relinquishment of racism and prejudice, the threat of violence, and the psychology of change. Much of the narration will be by South Africans themselves speaking

about the changes, and South Africans will be extensively involved in the production. This one-year grant covered the developmental costs of the film, which is scheduled for release in 1992.

Discretionary grants

Archdiocese of Cape Town, as a final grant toward a news service	$25,000
Council on Foundations, toward activities of the Southern Africa Grantmakers' Affinity Group	$20,000
Development Resources Trust, toward an independent commission on an enabling environment for nongovernmental organizations in South Africa	$25,000
Lawyers' Committee for Civil Rights Under Law, toward African and South African participation in international consultations on constitutional options for South Africa	$25,000
Princeton University, toward support of a visiting scholar from South Africa	$21,500
Southern Africa Information Foundation, for a television segment and educational video on women's leadership and development in South Africa	$24,800
Swaziland Educational Research Association, toward an international symposium on educational research	$25,000

Public understanding of development

Overseas Development Council — $250,000

In 1978 the Overseas Development Council was approached by congressional staff members to provide ongoing nonpartisan information and analysis to members of Congress and their staff members on policy issues involving the United States and developing countries. The result was the Congressional Staff Forum, which organizes briefings covering a wide range of subjects. Twenty meetings took place in 1990 under the direction of William E. Hellert. They included presentations on human development issues such as drug production, women's health, and AIDS programs; debt and development in African countries; and new competition for foreign aid between Africa and Eastern Europe. This grant extends the Corporation's support for another two years. The forum is examining a range of topics, including the state of scientific research in Africa and efforts to rebuild economies in strife-torn areas of the world. In addition, representatives from national and international organizations are being invited to discuss possible changes in the U.S. foreign assistance program.

TransAfrica Forum $200,000

TransAfrica Forum, founded in 1981 and directed by Randall Robinson, provides information on and analyses of development issues in Africa and the Caribbean and explores the impact of United States policies in these regions. It holds meetings and briefings for members of Congress and their staffs, scholars, students, and journalists and publishes a quarterly journal, *The African Forum*, whose subscribers are primarily leaders in the black community. The forum staff is planning a series of meetings with participant organizations to develop strategies for community education on foreign policy issues. Its visiting scholar and fellowship program will focus on human rights, economic development, health and the environment, conflict resolution, and democracy. The forum will soon complete the opening of a new library, which is expected to become the chief repository in the United States of historical and educational materials on African Americans' role in formulating foreign policy. The forum has received Corporation support since its founding in 1981. This final grant continues that support for two more years, enabling the staff to study the forum's long-term financial, structural, and human resource needs.

South Centre $160,000

The South Commission was established in 1987 in response to concerns that a deteriorating global economic environment was undermining gains that many developing countries had made in the 1960s and 1970s. With Julius K. Nyerere, former president of Tanzania, as chairman, and Manmohan Singh, former deputy chairman of the Indian Planning Commission, as secretary-general, the independent commission consulted with governments, international organizations, experts, and the general public to explore issues of concern to developing countries. The commission's report, *The Challenge to the South*, reviews the problems that developing countries have faced since World War II, including their relatively limited influence on the global economic environment over the past four decades. The report concludes that the rapid changes occurring worldwide — scientific and technological advances in particular — offer opportunities to transform the economies of developing countries. At the end of its work, the commission established the South Centre as a vehicle for disseminating the report's findings and recommendations. This eighteen-month grant is enabling the center to conduct promotional efforts and roundtables for policymakers, researchers, and interested citizens in the United States and Africa.

African-American Institute $250,000

Since 1975 the Corporation has supported the African-American Institute's Program on Policy Issues in African-American Relations, which seeks to expand the cadre of U.S. policymakers, journalists, and business and other leaders who are knowledgeable about Africa. The program organizes an annual conference as well as regular staff seminars on African social, economic, and political issues. In 1990 the program held meetings on the significance of Africa to the U.S. and Japan, the

economies of Uganda and the southern African states, and censorship and the African press. It also organized a seminar for African diplomats on the U.S. legislative process and cosponsored with the Nieman Foundation a meeting of African and American journalists and editors, among other activities. Meetings held in 1991 dealt with the role of the African press in current African political situations, reforms to meet the changing needs of education in South Africa, and the reintegration of South African exiles into that country. This grant continues Corporation support for the program on policy issues another year.

Radcliffe College — $275,000

Each year the Mary Ingraham Bunting Institute of Radcliffe College plays host to distinguished scholars from the United States and other countries in the humanities, natural and social sciences, and the arts. In 1988 the Corporation supported a program under which the institute awarded visiting fellowships to women from English-speaking countries of sub-Saharan Africa and the Caribbean. The fellowships, which last from four to six months, permit the visitors to teach, write, deliver a major lecture at Radcliffe and participate in a related colloquium, and travel to professional meetings and symposia at other universities. The first fellow was South African physician, public health scientist, and social activist Mamphela A. Ramphele. During her months at the institute, she finished writing for the Second Carnegie Inquiry into Poverty and Development in Southern Africa and studied the organization of Western Cape hostels. The second fellow, Eunice A. C. Okeke, a science educator from Nigeria, conducted research aimed at finding effective mechanisms for motivating girls to take a greater interest in science studies. This grant supports an additional three fellowships over a final three years. The first fellow named under the new grant is Beverley Anderson-Manley, an advisor to the government of Jamaica who is researching the topic of gender and the state, with particular attention to issues of patriarchy, class, and race in post-independence Jamaica.

University of Southern California — $99,000

Thousands of families along the United States-Mexico border live in border counties or *municipios* without benefit of sewage connections, decent housing, electricity, paved roads, or easy access to health care, and the resulting health and environmental problems are immense. Reliable information on these conditions is scarce, however, and little of it is regularly reported in the U.S. or Mexican press, although this is beginning to change with the mounting debate over the impact of the proposed North American Free Trade Agreement. This one-year grant is enabling the Center for International Journalism of the University of Southern California, under the direction of Murray Fromson, to offer one Mexican American and one Mexican journalist a mid-career journalism fellowship that includes special training on the health and environmental problems of the border. The year-long program leading to a graduate degree involves the fellows in extensive field research. In this case the fellows will be meeting with scholars and experts, public officials in health

and environmental agencies, and representatives of the U.S. border patrol; they will also visit U.S. manufacturing plants operating in northern Mexico and have an opportunity to investigate particular issues. The fellows are expected to produce published reports of their findings and experiences. The center, which has received support from the Corporation since 1986, is also assisted by the Times-Mirror Foundation, NBC, and the James Irvine, Ford, and John D. and Catherine T. MacArthur foundations.

African Council on Communication Education — $34,500

Based in Nairobi, Kenya, the African Council on Communication Education is a pan-African membership organization of communication and journalism educators and journalists that promotes the higher quality and use of mass media in sub-Saharan Africa. In its programs it seeks to improve communications and journalism training as well as reporting. This three-month grant supported the council's seventh biennial conference, which was held in Ouagadougou, Burkina Faso, in October 1991. Its overall theme was "Science and Technology: Implications for Communication Development in Africa." At the conference, African communication training institutions and communication scholars, researchers, policymakers, and practitioners discussed the implications of scientific and technological advances for development on the continent and the ways in which journalists can better communicate the significance of these advances to policymakers and the general public. The discussions are expected to clarify how the council and its members can strengthen science and technology reporting and to contribute to the initiation of an interagency program aimed at reforming curricula and training in science and technology journalism in Africa. A prior Corporation grant supported planning for the conference.

Discretionary grants

Columbia University, for a conference to prepare a book of essays on Latin America and the Caribbean	$25,000
High/Scope Educational Research Foundation, toward data analysis by Olayemi Onibokun of an international study of preprimary education	$25,000
High/Scope Educational Research Foundation, toward dissemination of an international study of preprimary education	$10,000
National Safety Council, toward research and writing by Philip Shabecoff on international environmental cooperation	$25,000

Cooperative Security

The grant program on Cooperative Security has four primary areas of emphasis designed to encourage the application of cooperative security principles to the avoidance of catastrophic conflict.

The first is concerned with helping the superpowers understand their interest in cooperating in the drastic reduction and restructuring of their nuclear forces, moving toward a situation in which there is acceptance of the principle that nuclear weapons cannot be used and that the only reason to have them is to deter their use by others.

The second concerns study of the applicability of cooperative security principles to restricting the supply of and reducing the demand for weapons of mass destruction and other modern weapons in regions of the world where there is now a high risk of war.

The third involves support of efforts to help the Soviet Union and its former allies become more reliable and stable partners in cooperative security efforts by successfully negotiating their political and economic transitions to freer and more responsive systems.

The program also has a continuing concern with helping policymakers and the attentive public understand these issues and have ample access to the information they need to make responsible decisions about them.

The program has evolved substantially in response to world developments; moreover, many of the Corporation's grantees are active in more than one of the above areas. As a result, the categories used to group the program grants made in 1990-91 do not correspond precisely to these four emphases.

The Soviet Union, U.S.-Soviet relations, and U.S.-Soviet cooperative projects

University of California, Berkeley **$797,000**

The Berkeley-Stanford Program in Soviet Studies was established with Rockefeller Foundation support in 1985 to foster collaboration among Sovietologists at the University of California, Berkeley, and Stanford University. With this three-year grant, the program is studying the economic and social transitions under way in the Soviet Union. While the changes there may have unique features, the experiences of other countries shifting from authoritarianism toward political pluralism and economic decentralization may offer ideas to Soviet reformers. This possibility is being examined by project leaders who are drawing on expertise both within and outside the two universities. They are collaborating with scholars at the Soviet Institute for International Economic and Political Studies of the Academy of Sciences of the U.S.S.R., which previously focused mainly on Eastern Europe and

China but now has broader interests in political economy and comparative studies. The researchers plan to hold workshops and conferences, publish several monographs in Russian and in English, and disseminate their findings through presentations and discussions with members of the All-Union and Russian Supreme Soviets and American policymaking communities. The principal investigators, who are also coordinating the team of specialists, are George W. Breslauer, Alexander Dallin, and Gail W. Lapidus, chair of the Berkeley-Stanford program.

University of California, San Diego — $386,200

Michael Cole, head of the Laboratory of Comparative Human Cognition at the University of California, San Diego, and Alexandra Belyaeva, director of the Communications Laboratory within the Institute of Psychology of the Soviet Academy of Sciences, are codirectors of the Corporation-supported "Velikhov-Hamburg Project," a U.S.-Soviet cooperative undertaking that studies the application of computers and computer-based communication in the education of elementary school-age children (see below). While the substance of that project concerns children's learning, its use of telecommunications has offered a practical way for researchers from both countries to collaborate. This two-year grant is enabling Cole to help Soviet scholars take further advantage of new communication technologies in joint efforts with their American counterparts. Belyaeva and her colleagues are studying the way that several groups within the Soviet academy involved in U.S.-Soviet projects use computer networks. They are assessing the institutional and personal factors that speed up or slow down the development of this activity, examining how the choice of American partners affects the use of the networks, and gathering general data on the increased use of the networks for international and internal communication alike. Her findings could help to extend the use of telecommunications for scholarly work and cooperation in and with the Soviet Union. The grant supports the staffing at Cole's laboratory to maintain the U.S. end of the project's communication and the analysis and technical assistance functions on the Soviet side.

University of California, San Diego — $340,000

Since 1985 the Corporation has supported a U.S.-Soviet research exchange on the applications of computers in elementary education. This scholarly collaboration has persisted through tensions in East-West relations and is beginning to make contributions to the field of cognitive science and education. Among the recent results of the project are evidence that adding intercultural communication to children's learning situations may affect what and how children learn and insights into the ways that researchers can overcome the barriers to collaboration posed by distance and by cultural and political differences. Children at three sites in the United States and two sites in the Soviet Union have been able to interact electronically around a blend of educational and play activities promoting thinking skills, global awareness, and social development. The children also interact with the researchers, whose observations of the children's progress were reported at a

conference held in Helsinki in May 1990. The project is coordinated by Michael Cole, who directs the Laboratory of Comparative Human Cognition at the University of California, San Diego, and Alexandra Belyaeva, director of the Communications Laboratory within the Institute of Psychology of the Soviet Academy of Sciences. Staff members from the two organizations have also exchanged visits to observe children using computers for learning and to build professional relationships. This grant supports the project for another nine months, which will result, among other outcomes, in a book-length report and, it is hoped, large-scale funding from other sources for expansion and institutionalization of the work among schoolchildren.

International Research and Exchanges Board — $110,200

Michael Cole, director of the Laboratory of Comparative Human Cognition at the University of California, San Diego, is a member of the Commission on U.S.-Soviet Exchanges in the Humanities and Social Sciences under the auspices of the International Research and Exchanges Board (IREX) and the Soviet Academy of Sciences. In 1984 he and Alexandra Belyaeva, director of the Soviet Academy of Sciences' Communications Laboratory in the Institute of Psychology, demonstrated that their colleagues could communicate with each other over telephone links to central computer utilities in Europe that, in turn, were linked by satellite with the United States. As a result, IREX began encouraging participants in its joint projects to use electronic mail to coordinate their work. With Corporation funding, it has promoted the development of alternatives to conventional communications systems, which require that communications — even Soviet-to-Soviet — flow through a computer in the U.S., which entails hard currency costs. In 1990, following the relaxation of prohibitions on former Warsaw Pact countries' access to the worldwide academic research networks, the Soviet Academy of Sciences' Institute of Organic Chemistry applied to be the official Soviet "national node" for one of them: the European Academic Research Network, or EARN. Like other such networks tying together Western universities and research centers, EARN is less expensive for individual users than are commercial electronic mail networks. This thirteen-month grant is enabling IREX to underwrite the first year of Soviet membership in EARN and to help ensure that this new opportunity for scholarly communication is available to the social sciences and humanities.

Center for Foreign Policy Development — $200,000

Collaboration between U.S. and Soviet scholars, scientists, and specialists has conventionally taken the form of reciprocal visits by groups from both countries. Between visits, communication between Soviet and American partners in research and discussion has often been difficult. In recent years the Soviet Union has established connections with worldwide academic computer telecommunications networks, but face-to-face contact is still needed. Video teleconferencing, which uses satellites or high-capacity land links to transmit video images and sound between groups in two or more studio-conference rooms, offers a partial solution, significantly reducing the need for expensive travel. With prior Corporation support, the

Center for Foreign Policy Development, an independent foreign policy research organization located at Brown University and headed by Mark Garrison, a former foreign service officer, explored the feasibility of applying newly developed compressed video techniques to videoconferencing. During the period covered by that grant, the center was able to reach agreement on the details of a first year's trial run of an academic teleconferencing system involving the center on this side and the Soviet Academy's Institute of Space Research in association with Intersputnik, the Soviet satellite telecommunications agency, and the Soviet Ministry of Communications on the other. This one-year grant supports the first, experimental, year of the new system.

Columbia University — $190,000

Jack F. Matlock, a career foreign service officer, served as ambassador to the Soviet Union from 1987 to mid-1991, a period that witnessed the transformation of the U.S.-Soviet relationship from one dominated by confrontation to one that emphasizes cooperation. This grant is enabling him to spend a year for research and writing at Columbia University's W. Averell Harriman Institute for Advanced Study of the Soviet Union. Matlock will bring to substantial completion two books that reflect his political and diplomatic experiences in the 1980s. One is an overview of the course and fate of *perestroika*, the other an analysis of the formation of U.S. policy toward the Soviet Union during the Reagan administration. Although he is pursuing his work independently of the institute's programs, he is interacting with its faculty, senior and junior visiting fellows, and students in lectures, seminars, and consultations on subjects relevant to his expertise. Matlock will be joined at the institute by Anatoly F. Dobrynin, the longest-serving Soviet ambassador to the United States (1962-86) and one of the few living former Soviet officials with a long-term insider's view of the U.S.-Soviet relationship and direct experience in formulating Soviet policy toward the United States. Dobrynin will analyze U.S.-Soviet relations over the past two decades.

Stanford University — $180,000

With the Cold War winding down, the United States and the Soviet Union are restructuring their military forces to operate effectively at much lower levels and converting part of their defense industries to nonmilitary production. As part of an effort to encourage cooperation between the superpowers in matters of international security, members of the Center for International Security and Arms Control at Stanford University have been developing a joint project with Soviet scholars and officials on this issue. With a ten-month grant from the Corporation, the center and the Institute of U.S.A. and Canada Studies of the Soviet Academy of Sciences organized a reciprocal set of visits and a joint study of the possible approaches the two countries can take to reduce their defense industry bases and convert them to civilian uses. A Soviet delegation visited the United States to appear before the U.S. Congress, then to meet with military contractors and commercial manufacturers throughout the country. The tour ended in the San Francisco

Bay area, where the Soviets visited firms and participants in the center's defense restructuring project and other Stanford faculty members. William J. Perry, the codirector of the center, and David J. Holloway, a specialist on Soviet defense matters, manage the project.

Johns Hopkins University — $100,000

As the United States and the Soviet Union address some of the fundamental issues dividing them, they are recognizing their common stake in understanding and encouraging reduction of regional conflicts. In 1990 the Corporation provided support for the initial phase of a collaborative U.S.-Soviet study of conflict reduction in developing countries. The project involves joint and parallel research, conferences, and publications codirected by I. William Zartman, an Africanist and specialist on negotiations and conflict reduction with Johns Hopkins University's Paul H. Nitze School of Advanced International Studies, and Victor Kremenyuk, a deputy director of the Soviet-based Institute of U.S.A. and Canada Studies and a specialist in international relations and international organizations. Zartman, Kremenyuk, and their colleagues are studying regional conflicts that, in the past, have attracted the superpowers' competitive involvement. They are aiming to produce an improved, shared understanding of the most effective ways that the leadership of the two countries can cooperate in promoting the reduction and management of local conflicts. Eleven scholars from the U.S. and the Soviet Union attended last year's conference. This final grant renews the Corporation's support for nine months, permitting a second conference to be held and the revision and editing of papers from both conferences for publication as a book.

National Academy of Sciences — $250,000

The Committee on Contributions of Behavioral and Social Science to the Prevention of Nuclear War was established by the National Academy of Sciences in 1985 to improve understanding of the cultural, institutional, political, and cognitive processes involved in causing or preventing conflict. In recent years, with the profound changes taking place in Eastern Europe and the Soviet Union, the committee has broadened its focus to a concern for the potential contributions of behavioral science to an understanding of the underlying issues affecting global security. At the same time, it has established a relationship with a group of Soviet social scientists organized under the auspices of the Soviet Academy of Sciences. Reciprocal visits and meetings between the two groups have allowed exchanges not only on international relations but, more generally, on the nature and methods of the social sciences in the two countries. These developments have led the committee to change its name to the Committee on International Conflict and Cooperation. The committee is cochaired by Charles L. Tilly, Distinguished Professor of Sociology and History at the New School for Social Research, and Herbert A. Simon, a Nobel laureate in economics and professor of psychology at Carnegie Mellon University. The Corporation, which made two prior grants to the committee, is supporting it for another two years. The committee will complete a series

of reviews and assessments of the scholarly literature, to be published as *Behavior, Society, and Nuclear War,* and continue its multidisciplinary workshops and its cooperative efforts with the Soviet group. The John D. and Catherine T. MacArthur Foundation are also funding the committee.

Social Science Research Council **$100,000**

During the two decades preceding Mikhail Gorbachev's leadership of the Soviet Union, American scholarly interest in Soviet domestic politics declined. Political scientists turned their attention to other areas of Soviet studies, and the number of graduate students entering this field of study dwindled. Now, at a time of significant change within the Soviet Union, with profound impact on U.S.-Soviet relations, the need for trained scholars to provide serious analysis and interpretation of Soviet internal developments has grown. This one-year grant renews previous Corporation support of annual summer workshops on Soviet politics and society, cosponsored by the Joint Committee on Soviet Studies of the Social Science Research Council and the American Council of Learned Societies. Conducted at the University of Toronto under the direction of Thane Gustafson, professor of government at Georgetown University, and Peter and Susan Solomon, professors of political science at the University of Toronto, the workshops bring together young scholars and advanced graduate students in various social sciences for two weeks of intensive study and discussion with senior scholars. The three workshops held to date have helped to revitalize the field and develop a network of specialists. Beginning with the summer of 1990, the workshops have included a senior faculty member from the Soviet Union. Future workshops will have one or two junior Soviet political scientists as well.

Discretionary grants

For telecommunication costs associated with a U.S.-Soviet project on the educational uses of computers in the early elementary school grades	$25,000*
Center for Foreign Policy Development, toward a project on U.S-Soviet-Cuban relations	$25,000
Georgetown University, toward discussions on science funding with representatives of the Russian Science Foundation	$25,000
Internews Network, toward a study of television news alternatives in the Soviet Union	$15,000
Johns Hopkins University, toward a conference on the Soviet Union in Latin America	$16,000

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Brookings Institution **$1,200,000**

The Brookings Institution's Foreign Policy Studies Program has been in the forefront of scholarly efforts to document and interpret turnabouts in Soviet foreign, economic, and military policy that have created the conditions for superpower cooperation in the face of global threats. With this grant Brookings is launching a three-year program of research and leadership education on the operational aspects of cooperative security regimes that would entail more openness in the exchange of military information among governments, greater economic integration of the Soviet Union and Eastern Europe with the West, and reevaluation of the threats to peace in the post-Cold War period, including the impact of nationalist and separatist movements in the former U.S.S.R. and Eastern Europe. The program will consider whether the principles of pan-European cooperative security arrangements can be extended to other regions of the world, such as the Middle East and Asia. The work is being conducted by fourteen senior fellows led by political scientist John D. Steinbruner. Through briefings, discussion groups, joint research, and consultations, Brookings is enlisting the public, the press, and the political leadership of the U.S., Europe, and the U.S.S.R. in an effort to build consensus for future policies drawing on concepts explored in the research. The program also receives support from the John D. and Catherine T. MacArthur Foundation.

Harvard University **$500,000**

The United States and the Soviet Union have no shared rationale for restructuring their military forces, plans, and operational policies to reflect fundamental changes in their political relations. This two-year grant is supporting an examination by the Center for Science and International Affairs of Harvard University's John F. Kennedy School of Government of ways the superpower military establishments safely can make the transition to the post-Cold War era. Under the theme of post-Cold War "reconstruction," center scholars are reassessing the threats to security and redefining the basic purposes of superpower military forces. They are analyzing the technology base needed to meet future defense requirements and assessing the safety of facilities where nuclear weapons are built and destroyed. Further, they are examining questions of the stability and security of the Soviet high command and the future careers of trained personnel with knowledge of how to build nuclear weapons. Their research will provide the analytical basis for many of the recommendations of the Carnegie Commission on Reducing the Nuclear Danger (see page 90). The center's second area of inquiry involves the role of high technology weapons in the new world order and will contribute to the work of the Brookings Institution's Task Force on the Prevention of Proliferation (see page 89). Scholars with policy experience are carrying out this research agenda under the leadership of physicist and historian Ashton B. Carter.

Brookings Institution $331,520

The end of Cold War competition for influence suggests the possibility of a new approach to regional security based on local and global cooperation and on restraint in the sale and development of increasingly provocative weaponry. This two-year grant is supporting the establishment of a Task Force on the Prevention of Proliferation, comprising a team of intellectual leaders from different research institutions. Their charge is to examine whether cooperative security principles can be applied to restricting the supply of and reducing the demand for modern weaponry in unstable regions of the world. Coordinated by John D. Steinbruner and Janne E. Nolan of the Brookings Institution, the task force is initially examining ways to consolidate the myriad number of treaty prohibitions, export controls, and *ad hoc* agreements that form the basis for nonproliferation policy. They will consider the addition of strict international controls on the transfer of advanced conventional munitions, and they will advance proposals for monitoring and enforcing compliance with these nonproliferation regimes. Separately funded working groups are weighing the relative merits of across-the-board global prohibitions and measures that are tailored to the Middle East, South Asia, and the Korean Peninsula. Consulting with task force members is an informal steering committee of policymakers led by Senators Sam Nunn and Richard Lugar, respectively, of the Senate Armed Services and Senate Foreign Relations committees. The project will result in a book and series of articles outlining the logic of cooperative security and its practical application to regions where weapons of mass destruction exist.

Nuclear Control Institute $300,000

With superpower rapprochement, nonproliferation policy need no longer fall victim to Cold War efforts to exploit regional disputes for geopolitical gain. Nevertheless, exports in nuclear materials and technology continue as nations attempt to balance their arms control objectives with competing commercial and foreign policy goals. The Nuclear Control Institute, under the leadership of its founder, former Senate staff member Paul L. Leventhal, has provided an independent voice arguing for consistency in denying would-be proliferators access to weapons-grade material. For ten years the institute has focused public and governmental attention on the risks associated with the transport of highly enriched uranium and separated plutonium, for either weapons manufacture or commercial power programs. It also has pressed governments to take responsibility for the ultimate disposition of weapons-usable materials or technologies they export. With prior Corporation support the institute has established an international task force on preventing nuclear terrorism, publicized the use of plutonium in commercial power reactors in Japan and Europe, sponsored conferences for officials of nuclear and near-nuclear countries on how to establish safeguards and confidence-building measures, and worked with American and Soviet policymakers and scientists to strengthen the nonproliferation practices of both nations. This grant provides two more years of support for the institute, which is also funded by the John D. and Catherine T. MacArthur Foundation, the Rockefeller Brothers Fund, and the W. Alton Jones Foundation.

Carnegie Commission on Reducing the Nuclear Danger $176,155*

Despite reductions in United States and Soviet arsenals, the nuclear danger remains. More and more countries are developing weapons of mass destruction and the capability to strike distant targets, while local disputes stemming from poverty, religious fanaticism, nationalist pride, and the need for access to natural resources pose a continuing threat. One of the consequences of the shifting rules of world order is that the superpowers must plan for conflict that would not be deterred by a carefully calibrated balance of their nuclear weaponry. At the request of Carnegie Corporation, New York University historian McGeorge Bundy, Stanford University physicist Sidney D. Drell, and former chairman of the Joint Chiefs of Staff Admiral William Crowe have formed a Commission on Reducing the Nuclear Danger, which is studying the nature of the nuclear danger in the twenty-first century. They will consult with a larger advisory committee and offer a fresh appraisal of the role of nuclear weapons in a changing security environment, identifying the nuclear threats to, and requirements for, global security. In considering the likely future paths to nuclear war, they are reassessing the United States' long-run nuclear posture and detailing desirable changes in doctrine, force structure, and targeting. Bundy is former special assistant for national security to President John F. Kennedy and author of the seminal history of the nuclear arms race, *Danger and Survival*. Commission members are drawing heavily on the analytic work supported by the Corporation at Harvard and Stanford universities, the Massachusetts Institute of Technology, the Brookings Institution, and elsewhere and will integrate it into their policy recommendations. Their report, to be published in 1992, will be written for the general public. This grant supported the project during its initial six months.

Henry L. Stimson Center $250,000

Among the questions posed in the post-Cold War period, amid changes in military technology and doctrine and downward pressure on budgets, is whether the four branches of the United States military should be more fully integrated to meet the likely demands that will face them in the coming years. Threats ranging from the drug trade to terrorism to environmental degradation are raising a different set of questions about the future organization and purposes of the military. Barry M. Blechman, chairman of the Henry L. Stimson Center, an organization devoted to research and public education on arms control and international security, is undertaking a sixteen-month study of the implications of such changes for the way the U.S. military services are structured to do the tasks expected of them. Blechman, former assistant director of the U.S. Arms Control and Disarmament Agency, is joined in the study by William J. Durch, senior associate at the center. Together with a group of consultants, they are determining what global trends — including the establishment of regional cooperative security regimes — will affect U.S. interests and are exploring what will be required of the military in response to these developments. They are also identifying the optimal size and structure of the armed forces needed to meet the military's tasks and suggesting a plan enabling

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the U.S. to move from its current military structure and budget to that proposed situation.

Center on Budget and Policy Priorities $225,000

The Washington, D.C.-based Defense Budget Project, founded in 1983 by political scientist Gordon Adams of the Center on Budget and Policy Priorities, is a primary source of independent information and analysis on military spending issues with a wide audience among Congressional policymakers and the press. In 1989 Adams and Laurence Korb, a former assistant secretary of defense now at the Brookings Institution, established a task force on military forces and defense budgets. Its report, *Restructuring the U.S. Military: Defense Needs in the 21st Century,* recommended changes in American conventional and nuclear forces that would cut military spending in half by the year 2000. This grant is enabling Adams and Korb to continue their partnership for three more years, during which they will produce an ongoing analysis of the budgetary impact of proposed changes in force structure and weapons policy. In 1991 they produced a study of the Pentagon's first six-year plan accompanying the FY 1992 military budget request. They are also analyzing the impact of arms control proposals on the administration's plans for force structure and weapons programs, and they intend to furnish their own proposals for reshaping U.S. military forces by reducing ground units in Europe, relying more on reserves, halting new starts in nuclear weapons, and reallocating missions among the services for greater efficiency. Joining Adams and Korb in their work are twenty security specialists from other institutions, including several Corporation grantees. The project also is supported by the Pew Charitable Trusts and the John D. and Catherine T. MacArthur, Public Welfare, Alfred P. Sloan, and New Land foundations.

Harvard University $225,000

Any nation with a developed petrochemical, pesticide, fertilizer, or pharmaceutical industry will possess the expertise, equipment, and materials to pursue chemical warfare. According to estimates of the U.S. Central Intelligence Agency, chemical weapons have been developed by more than twenty nations, a number likely to grow in parallel with the world's industrial capacity and freedom of commerce. In these circumstances many experts believe only a treaty banning the development, production, possession, transfer, and use of chemical weapons can prevent their proliferation. Although an *ad hoc* committee representing the Geneva Conference on Disarmament has been negotiating a multilateral ban since 1984, these talks have languished in the face of other crises and other disarmament opportunities. In an effort to expedite the negotiations, Harvard University biochemist and chemical weapons expert Matthew Meselson is leading an international program of public and leadership education on chemical weapons issues. Under a three-year grant from the Corporation, Meselson and Julian Perry Robinson, also a chemist and weapons specialist, from the University of Sussex in England are conducting research on chemical weapons control, expanding an internationally accessible computerized information bank, publishing a quarterly journal on the issues, and

organizing colloquia and briefings to strengthen a network of concerned scholars, representatives of the chemical industry and the media, and policymakers in the developed and developing world. The project is also supported by the John D. and Catherine T. MacArthur, Rockefeller, and Public Welfare foundations and the John Merck and Ploughshares funds.

Monterey Institute of International Studies — $200,000

There currently exists an expanding group of nations that exports ballistic missiles and nuclear materials and technology. Many of these countries are signatories to the 1968 Nuclear Nonproliferation Treaty and operate outside the 1967 Missile Technology Control Regime. The United States, the Soviet Union, and some European countries have also supplied friendly nations with ballistic missiles, only to have the technology retransferred within the Third World. They are now seeking to improve their own compliance and to draw emerging suppliers into nonproliferation regimes. The Monterey Institute of International Studies' Center for Russian and Soviet Studies, directed by William C. Potter, has established computerized data bases of information on international nuclear and ballistic missile transactions and the laws and regulations affecting this commerce. The center also issues a quarterly publication summarizing the nuclear export and import activities of fifteen states. Recently Potter began training a new generation of nonproliferation specialists in the Soviet Union within and outside government and installing his data bases at the Moscow State Institute of International Relations and the Moscow State University of Linguistics. Papers prepared by the Soviet participants at nonproliferation workshops to be held in Moscow and Monterey in 1991 and 1992 will be published in a book-length volume on Soviet perspectives on nonproliferation. Planned are briefings on their findings arranged for relevant legislative committees in the U.S. and the Soviet Union. This grant supports the institute for two years. During this time, Potter hopes to develop a community of Soviet and republic experts in nonproliferation policy whose existence will reinforce their government's commitment to nonproliferation regimes. The John Merck Fund is also supporting the project.

Harvard University — $163,000

In 1988 the Corporation awarded a grant to the John F. Kennedy School of Government at Harvard University for a joint U.S.-Soviet study of the possibility that an expanded regime of "confidence- and security-building measures" in Europe — the kind agreed to in the Helsinki accords — could lead to a more general agreement on conventional force constraints and reductions. Principal investigator Robert D. Blackwill, a lecturer in public policy, and his colleagues reviewed the range of such measures and organized planning meetings in anticipation of a Moscow conference on the topic. However, rapid change in the East led the Soviets to ask that the conference be postponed until the situation became clearer, and work on the project was temporarily halted. Using funds from the grant, Blackwill formulated a plan for Soviet generals and admirals to participate in a specially designed executive

training course offered by the Kennedy School on U.S. policymaking and on the relationship between the civilian and military worlds. The two-week curriculum addressed such Soviet concerns as the integration of professional military officers into civilian society and the adaption of military forces to new technological and geopolitical realities. This six-month grant covered further curriculum development for the course, faculty salaries, and all of the domestic costs for the Soviet participants.

Conflict Management Group — $150,000

The Conference on Security and Cooperation in Europe (CSCE) comprises all the countries of Europe, including the Soviet Union, the United States, and Canada. In early 1991, a CSCE expert group met in Valletta, Malta, and agreed in principle that the CSCE should establish a third-party mechanism to facilitate the settling of disputes among member states on such matters as trade, territory, the environment, minority and ethnic relations, and human rights. The recommendation is now being considered by CSCE countries with a view toward adopting it at the ministerial-level meeting scheduled for Helsinki in 1992. With Corporation support, Roger Fisher, a professor at Harvard Law School and the director of the school's negotiation project, has, with colleagues at the project and at the Conflict Management Group (CMG), been invited to consult with some of the member governments about ways the "Valletta mechanism" might work. Few models exist for helping parties to a dispute develop a process for resolving it themselves, as opposed to having an arbitrator or mediator assume the task. Under this eighteen-month grant, CMG, which advises on international conflict and public policy, is working with the CSCE to propose a specific conflict management and resolution system that would be offered at the Helsinki meeting. CMG is working to gain broader recognition of the potential role for third parties in helping the earlier, negotiation phase of disputes and is holding workshops at which practitioners from CSCE governments help other members understand nonconfrontational approaches to negotiation and models for third-party assistance in resolving disputes.

Federation of American Scientists Fund — $117,500

In 1987 the Federation of American Scientists (FAS) Fund, chaired by physicist Frank von Hippel and directed by Jeremy J. Stone, began a five-year joint study with the Committee of Soviet Scientists for Peace and against the Nuclear Threat (CSS) on ways to reduce American and Soviet nuclear weaponry to fewer than 2,000 warheads on each side. The two groups have recommended a disarmament regime that emphasizes cuts not only in ballistic missiles but also in nuclear warheads and the fissile materials they contain. These recommendations and a plan for verifying warhead reductions are published in their 1990 report, *Reversing the Arms Race: How to Achieve and Verify Deep Reductions in the Nuclear Arsenals*. In disseminating their work, the Soviet and American scientists have given briefings to members of the U.S. Congress, the Joint Chiefs of Staff, and other government officials. Under this one-year grant, supplementing previous support, the FAS-CSS

team is collaborating on ways to halt the further development of maneuverable reentry vehicles and earth-penetrating warheads that can be used to attack command posts and space radars that can be used to target submerged submarines. As this research proceeds, the group is discussing ways to promote military *glasnost* on both sides of the nuclear arms race and identifying areas of military research and development that can be shared without compromising either Soviet or U.S. national security. The W. Alton Jones Foundation has been a cofunder of this project.

Center for Strategic and International Studies **$115,500**

Chemical arms control and disarmament have recently come to the forefront of U.S. policy concerns. The necessity of making major decisions on such matters as chemical weapons proliferation, the function of chemical weapons as a deterrent to their use or the use of nuclear weapons, and the verifiability of global agreements banning their production and use has made more urgent the communication of up-to-date knowledge to policymakers in both the executive and legislative branches. Under this one-year grant, the Center for Strategic and International Studies is conducting a program to close the gap between knowledge and policy. It is convening a congressional study group on chemical weapons, conducting further research, and holding an international conference to integrate chemical arms control discussions into a broader strategic and policy framework and disseminate broadly the findings and conclusions. Through these and other activities, the center will endeavor to raise the level of policy debate and improve the public's understanding of chemical weapons as a complex dimension of international security. Brad Roberts, a center research fellow, editor of the center's publication, *The Washington Quarterly,* and a chemical arms control specialist, is project director.

Federation of American Scientists Fund **$100,000**

The reduction of the Soviet threat and mounting budget pressures have prompted the cancellation of most plans to develop an exotic space-based Strategic Defense Initiative (SDI), intended to shoot down incoming ballistic missiles. However, concerns about the unauthorized launch of strategic weapons and possible terrorist attack have sparked interest in more limited ground- and space-based anti-ballistic weaponry. As policymakers and the public assess the latest iteration of SDI, they will find few reliable sources of information and analysis outside of government. John E. Pike, director of the Space Policy Project of the Federation of American Scientists Fund, is one. Pike regularly reviews congressional testimony, federal budget documents, aerospace industry reports, and the trade and daily press for information on space policy in general and antiballistic missile systems in particular. He also maintains computer data bases with statistics on every rocket, shuttle, or satellite known to have been launched by any nation since World War II and writes articles, briefing papers, and fact sheets that are disseminated broadly. This one-year grant supports Pike's research and writing and the maintenance of his databases and files — resources that will also be made available to the Brookings

Institution's Task Force on the Prevention of Proliferation (see page 89), which is concerned with the spread of ballistic missiles capable of carrying nuclear and other warheads.

Discretionary grants

For support of the Carnegie Commission on Reducing the Nuclear Danger	$25,000*
Center for Education on Nuclear War, toward a study group on U.S. policy on the use of nuclear weapons	$20,000
Council on Economic Priorities, toward professional and public education on chemical and biological weapons proliferation	$25,000

Political and economic transitions in Eastern Europe and the Soviet Union

Columbia University **$506,100**

A major challenge for policymakers who have become accustomed to viewing the world based on the Cold War is to understand concretely what will be necessary to make a cooperative security regime for Europe a reality. Under this three-year Corporation grant, Herbert S. Okun, adjunct professor at the School of International and Public Affairs at Columbia University and former ambassador to the German Democratic Republic, is to organize a Committee on Europe to study the full range of issues that will determine the future structure of European politics, economics, and security. Of central concern are the roles of a unified Germany and of the republics of the Soviet Union in a new European security order and ways of strengthening democracy and economic security in Central and Eastern Europe. The program, which is based in the school's Institute on Western Europe but also involves participants from the Institute on East Central Europe and the W. Averell Harriman Institute for Advanced Study of the Soviet Union, is organized around a faculty working group that meets eight times a year to review research papers and discuss key issues with visitors. Senior faculty members from other area universities and representatives from the diplomatic, business, and policy communities will also participate where appropriate, and an annual workshop will be held for journalists. Ambassador Okun, who is working half time on this project, will summarize the group's analyses and conclusions in occasional essays and news articles and possibly publish selected background papers (see Financial Services Volunteer Corps, page 99).

International Research and Exchanges Board **$300,000**

The euphoria that followed the revolutions of 1989-90 in Eastern Europe has been replaced by a resurgence of traditional hatreds and rivalries among ethnic groups

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that had simmered under the Communist surface. In 1990 the Corporation joined the International Research and Exchanges Board (IREX) in sponsoring a meeting on ethnic tensions in Eastern Europe and the question of whether Western scholarship and experience might help mitigate the tensions. This ten-month grant supported the work of IREX executive director Allen H. Kassof in planning and implementing a five-year program designed to encourage the development of a regional community of researchers and policymakers committed to improving ethnic relations and link them with resources from the wider world. Central to the plan is creation of an international advisory council on ethnic accord to develop the program's multiple-pronged strategy of promoting data collection, research, training, and communication on the issues. Kassof and his colleagues have established a regional consortium of research and policy institutions prepared to cooperate in this effort and cosponsored, with the Romanian Academy of Sciences, the first in a series of annual regional workshops.

Stanford University — $250,000

A political scientist specializing in the Soviet Union and the Warsaw Pact, Condoleezza Rice is a senior fellow in Stanford University's Institute of International Studies. In the spring of 1991 she returned to Stanford after serving two years on the staff of the U.S. National Security Council. During her tenure she observed how little the United States understood the 1989-90 events in Eastern Europe and their wider implications. U.S. policy assumptions of enduring confrontation in a bipolar world eroded in less than twelve months. Her position now is that the "new Europe" has the potential to base its security and stability in a set of common values embracing the rule of law, human rights, and freedom of speech, assembly, religion, and the press. In the near term, however, Eastern countries will need a great deal of assistance in joining this process. Among the possible obstacles are the countries' limited experience with basic democratic institutions, their ethnic and national conflicts, and the impact of economic integration of the European community. To build a scholarly base for addressing the issues, Rice is using this two-year grant to plan, organize, and draw together faculty resources from Stanford for a project on security in the new Europe. Her work is expected to result in a funding plan enabling Stanford and the institute to maintain an enduring program of research and teaching on Europe and European security.

Harvard University — $225,000

Eastern Europe's success in developing free markets and democratic institutions and procedures will depend at least in part on a global environment of political stability — an environment that in turn will depend on the leadership and resources of the international community. Toward that end, Harvard University's John F. Kennedy School of Government, jointly with the University of Toronto's Centre for International Studies and the Organization for Economic Cooperation and Development, has begun to create an informal club of parliamentarians from Europe and North America. Known as Project Liberty, the initiative is intended to educate

and assist Eastern and Central European politicians in the practicalities of democratic governance and enable Western scholars and policymakers to become more knowledgeable about the transitions under way in the region. The program combines education, exchange visits, conferences, and advice similar to that which helped transform postwar Germany and Japan. Under this three-year grant, the project is conducting workshops and comparative case studies for scholars and public officials on the development of state and local government institutions, the social and political consequences of the privatization of public functions, and the management of government bureaucracies. The workshops are being held in both Europe and North America. Former member of the British Parliament Shirley Williams cochairs the project. Robert Beschel is executive director. Project Liberty is also supported by the Pew Charitable Trusts, the Rockefeller Brothers Fund, and the German Marshall Fund.

Helsinki Watch — $200,000

In the Soviet Union, continued public discontent, ethnic violence, and conflicts between the central authorities and republic leaderships are giving new urgency to the need for mechanisms to safeguard human rights and promote the lawful redress of grievances. At the same time, the disintegration of the Soviet Union's federal structure has made it difficult to investigate the alleged human rights violations stemming from these confrontations. With prior Corporation support, Helsinki Watch, an independently incorporated component of Human Rights Watch and the U.S. member organization of the International Helsinki Federation for Human Rights, has worked to organize American support and concern for the rights of dissidents and reformers throughout the Soviet Union. It has also established links with the thousands of new citizens' clubs, associations, and organizations whose interests range from recreation to politics. Under this one-year grant, Helsinki Watch is expanding these activities further. It is establishing an office in Moscow, working in the other Soviet republics, and holding conferences on the methodology of fact-finding on current and past human rights violations and on the peaceful resolution of ethnic conflicts. Jeri Laber is executive director.

Global Outlook Education Institute — $200,000

In 1990 Global Outlook Education Institute, a research and educational organization in California, obtained a Corporation grant to plan a joint study between members of Congress and American security experts on the one hand and members of the Soviet and Russian republic parliaments and Soviet security specialists on the other to explore the ways in which Soviet and republic parliamentarians can exercise effective oversight over their nation's defense and foreign policy operations. This two-year grant is enabling the institute, under the direction of its president, Soviet specialist Gloria Duffy, to carry out the study. Eight working group sessions are to be held in Moscow and Washington, D.C., on the legislative role and specific procedures concerning defense budget oversight, restraint of conventional arms transfers, nonproliferation of nuclear weapons, arms control compliance, intervention and the use of force, economic conversion, environmental consequences of

military programs, and legislative priorities to promote peace and security. Each session will produce reports with recommendations on legislative oversight, and institute staff will produce articles for foreign policy journals and the popular media. The W. Alton Jones Foundation has joined the Corporation in supporting this program.

Lawyers Committee for Human Rights **$140,000**

As the Soviet Union embarks on a comprehensive program of economic, political, and legal reforms aimed at revitalizing Soviet society, the means by which the reforms are being carried out remain largely obscure to Western observers. Since 1987 the Lawyers Committee for Human Rights has monitored and assessed the process and implementation of Soviet legal reform, which is an integral component of *perestroika*, or restructuring. The program has two complementary objectives: to engage Soviet officials, lawyers, and scholars in an exchange of information and views with U.S. judges, lawyers, and legal scholars and to monitor and prepare periodic written assessments of revisions in the Soviet legal system. Through meetings and seminars the committee has brought together Soviet and American counterparts to deliberate on constitutionalism, the role and functions of an independent judicial system, and the contributions of legal defense organizations. With this two-year grant the committee is continuing its work in the Soviet Union. Among its activities, the committee, together with the International Foundation for the Survival and Development of Humanity, will produce a manuscript comparing legal protection of human rights in the Soviet Union and the United States. Mary S. Holland is project manager.

Hofstra University **$100,000**

As a new economy unfolds in the Soviet Union and its constituent republics, unions and labor organizations, as well as managers and future employers, are recognizing that they have much to learn about the practice of open competition if they are to represent the political and economic interests of working people. Western labor unions and students of industrial relations, in turn, are interested in better understanding the forces that will lead Soviet change. With a fifteen-month grant from the Corporation, the Center for the Study of Work and Leisure at Hofstra University, headed by Bertram Silverman, hosted one symposium in the Soviet Union and one in the United States for labor leaders, managers, and experts on labor-management relations from the two countries. Cosponsored by the Soviet Sociological Association and the Soviet Academy of Labor, the meetings compared the historical development of the two industrial relations systems, examined how socioeconomic and political changes are inducing changes in these systems and how management, unions, workers, and government are responding to these challenges, and proposed ways of making worker-management relations more productive and satisfactory. In addition to the formal meeting, the organizers have held informal workshops in which trade union leaders, management, government,

and legal experts led discussions on such labor relations issues as labor law, collective bargaining, grievance procedures, and arbitration.

Financial Services Volunteer Corps — $100,000

The former Communist bloc countries have almost no experience with the basic financial institutions and mechanisms that make free-market economies work: central banking systems, securities markets, other capital markets, and the proper legal, accounting, and regulatory framework for running them. As the wave of change swept over Eastern Europe, President George Bush made an appeal to the private sector business community in the United States to provide *pro bono* advice to those countries as they undertook to transform their economic systems. One response to this appeal was the organization of the Financial Services Volunteer Corps, which aims to identify and recruit private-sector talent willing to work with these countries on their economic transition problems and make its services available on a voluntary basis. To date the corps has undertaken missions to Poland, Hungary, Yugoslavia, Czechoslovakia, and Bulgaria, with partial support for the latter three from the U.S. Agency for International Development (AID). The missions have been preceded and followed by discussions between and among the mission participants and officials from the U.S. Department of State, AID, and others. The corps has also brought key Eastern Europeans to the United States for first-hand observation of free-market financial operations and practices. The corps operates in countries that are not eligible for AID funding, including the Soviet Union and Romania. Herbert S. Okun, adjunct professor at the School of International and Public Affairs at Columbia University and former ambassador to the German Democratic Republic, is executive director of the corps on a half-time basis, for which this one-year grant provides general operating support (see Columbia University, page 95).

Discretionary grants

Conflict Management Group, for planning a project to assist in the development of a conflict resolution system for Europe — $25,000

Improved communications between scholars and policymakers, and education of the public

Scientists' Institute for Public Information — $500,000

Since 1985 the Corporation has supported the National Security Program of the Scientists' Institute for Public Information (SIPI), headed by Alan McGowan. The project endeavors to improve the news media's coverage of scientifically and technically complex issues relevant to national security and thereby enhance public understanding. Assisting in this effort is SIPI's Media Resource Service, which offers

reporters information and free referrals to experts on a wide range of scientific topics, including national security; the Videotape Referral Service, from which television journalists obtain visual material on any topic in science and technology; and the Defense Writers Group, a group of seventy-seven Pentagon reporters who meet an average of twice monthly for discussions with top military and national security experts. In 1990, with Corporation funding, SIPI conducted a two-day conference for scholars and leading reporters and media executives on the effects of the end of the Cold War on the media's analyses and interpretations of international relations and international conflict issues that are becoming a central theme of SIPI's activities. This two-year grant supports continuation and refinement of the National Security Program.

The Aspen Institute — $453,500

Since 1986, through a series of conferences and breakfast meetings sponsored by the Aspen Institute, the Corporation has supported the development of a cadre of members of Congress with a strong working knowledge of the Soviet Union and, more recently, Central and Eastern Europe. These meetings bring scholarly experts together with key policymakers on a nonpartisan basis for the exchange of knowledge, information, and perspectives on conditions and developments that may affect the internal and international behavior of countries in the former Soviet bloc. Congressional participants have been joined by West European parliamentarians and, when appropriate, government representatives from Eastern Europe and the Soviet Union. Organized by former Senator Dick Clark, senior fellow at the institute, the conferences are held twice a year, each resulting in the publication of a report. To date seven conferences and twelve breakfast meetings have taken place — including a seminar in Prague that drew leaders of the newly elected governments of Eastern Europe. This grant supports the project for another year, covering two conferences and several breakfast meetings. The project also is funded by the John D. and Catherine T. MacArthur, W. Alton Jones, and Ford foundations.

Fund for Peace — $300,000

The National Security Archive, a project of the Fund for Peace, is a library and research facility whose purpose is to collect, index, analyze, house, and make available to research centers and scholars contemporary declassified and unclassified U.S. government documents pertaining to national and international security policy. The archive builds collections by subject and particular time periods, with name and subject indices, bibliographic catalogues, and narrative chronologies. Each set ranges between 12,000 and 30,000 pages. The first six sets — on U.S. policy and the Iranian revolution, the Iran-contra affair, the Cuban missile crisis, El Salvador, the U.S. intelligence community, and the Marcos years in the Philippines — were completed and published in 1990 and are being marketed in microfiche to libraries and scholars by the British-U.S. publisher Chadwyck-Healey. The archive also negotiates and litigates on behalf of individuals and organizations

seeking material that the staff would like to add to its collections. Directed by John E. Ruthrauff, the archive has recently begun to realize income from the sale of its first microfiche document sets and indexes. This is not sufficient, however, to offset the continuing need for outside support. The Ford Foundation provided the archive a $1.5 million revolving line of credit at its establishment. This grant continues previous Corporation assistance for another year, giving archive staff time to explore the possibilities for institutionalizing the archive in a setting that will provide some of the subvention it is likely to need indefinitely.

American Civil Liberties Union Foundation — $200,000

The Center for National Security Studies is a joint project of the American Civil Liberties Union Foundation and the Fund for Peace. Established in 1974 by Morton H. Halperin, director of the Washington, D.C., office of the American Civil Liberties Union, the center conducts a program of research, litigation, and public education to promote the right of American citizens to obtain and publish information related to national security and foreign policy. Since helping to strengthen the provisions of the Freedom of Information Act, it has brought suit, or assisted others in litigation, to enforce or clarify the act. The center also provides materials and training for individuals wishing to obtain information under the act, works to remove impediments to the flow of information and ideas into and out of the United States, and helps individuals resist government efforts to limit the dissemination of scientific information it considers "unclassified but sensitive." In light of recent improvements in relations between the superpowers, the center is reorganizing its efforts under the rubric, "Ending the Cold War at Home," to determine whether any security-based constraints on liberty and access to information are still justified. The center prepared a book-length review of the issues that formed the agenda for a national conference in 1991, cosponsored by more than forty-five organizations. This two-year grant, which continues support that the Corporation has made since 1984, joins funds contributed by the John T. and Catherine T. MacArthur Foundation.

Topics of special interest

Discretionary grants

Harvard University, toward research and writing by Karl W. Deutsch	$25,000
Johns Hopkins University, for a study of democratization in the Islamic world	$25,000
Johns Hopkins University, toward planning for the aftermath of the Persian Gulf war	$25,000
New School for Social Research, toward a project on global order in the 1990s	$25,000

University of California, San Diego, toward research and education on cooperative security in the Middle East	$25,000
University of Maryland Foundation, toward a project on women in international security	$25,000
	$25,000
University of Southern California, toward a workshop on international security studies	$4,000

Special Projects

The Corporation awards some grants outside its three main programs under the title, Special Projects. The largest percentage of the current Special Projects budget supports a special Corporation commission aimed at strengthening the means for incorporating scientific and technological knowledge into federal and state policy and administrative decision making. Grants are also made toward the strengthening of democratic institutions in the United States. In addition, over the past year, the Corporation has assisted minority groups in participating in, and assessing the fairness of, the redistricting process that follows the census.

The Corporation maintains its membership in national and New York regional organizations that monitor the activities and represent the interests of foundation and other nonprofit organizations to the public and the government. These organizations provide information about foundations and help foundations and the independent sector learn how they are perceived by their constituents, the public, and the government.

Science policy

Carnegie Commission on Science, Technology, and Government — $2,334,672*

The Carnegie Commission on Science, Technology, and Government was created by the Corporation in 1988 to help government institutions respond to the unprecedented advances in science and technology that are transforming the world. The twenty-two-member commission, cochaired by Joshua Lederberg, president *emeritus* of Rockefeller University, and William T. Golden, chair of the American Museum of Natural History, includes prominent scientists, educators, journalists, attorneys, and political and business leaders. It is spending approximately five years assessing the ways that government makes decisions that involve science and technology and is recommending changes in organization and decision-making processes that will enable government to respond more effectively. The commission has published six major reports thus far: *Science & Technology and the President; E^3: Organizing for Environment, Energy, and the Economy in the Executive Branch of the U.S. Government; New Thinking and American Defense Technology; Technology and Economic Performance: Organizing the Executive Branch for a Stronger National Technology Base; Science, Technology, and Congress: Expert Advice and the Decision-making Process;* and *In the National Interest: The Federal Government in the Reform of K-12 Math and Science Education.* Among those expected in the coming year are *Science, Technology, and*

* *Administered by officers of the Corporation*

Congress: Analysis and Advice from the Congressional Support Agencies and two other reports concerning Congress — one on congressional procedures for addressing science and technology, the other on longer-range perspectives on science and technology issues. Before the commission disbands, it will issue a final report synthesizing its findings and conclusions. During the fiscal year 1991, a grant was also made for the following related project:

American Association for the Advancement of Science, for the preparation and dissemination of a guide to Congress for scientists and engineers — $15,000

Discretionary grants

Harvard University, toward international research by Dorothy S. Zinberg on linkages between research universities and industry — $25,000

Massachusetts Institute of Technology, toward a workshop on the relationship between university science and government — $25,000

Strengthening democratic institutions

Independent Production Fund — $500,000

This one-year grant supports "Voices from the Electorate," an experimental two-part television and radio project coordinated by Alvin Perlmutter, head of the Independent Production Fund. Its purpose is to increase the participation of African American and Latino communities in the 1992 presidential election and convey to the larger public and the candidates their views on a range of national issues. In the first phase, the fund will work with the National Coalition on Black Voter Participation, the Hispanic Policy Development Project, and Univision (the Spanish-language national television network) to sponsor approximately ten issue-oriented town meetings for local broadcast over radio and television. The project's second phase will culminate in October 1992 in a national television broadcast of two one-hour documentaries detailing what many African Americans and Latinos think about specific issues and the political process and examining the role these two political constituencies will have in future elections. The presidential candidates will be offered the opportunity to appear in the documentaries in order to respond to questions and issues raised during the town meetings. Project staff members will work with the local communities to promote the meetings, produce press kits and public service announcements, and help generate local media coverage. The fund has also received support from Univision and is expected to secure local corporate and other foundation funding.

Greater Washington Educational Telecommunications Association — $200,000

For years Americans have been inundated with warnings that the United States is losing its competitive edge and risks becoming a "second-class" nation. Symptoms cited are escalating trade and budget deficits, paychecks outstripped by inflation, inadequate schools, high crime and drug abuse rates, deteriorating infrastructures and public services, and the dependence of the military on other countries for critical technologies. There is no national consensus on this question, however, nor is there agreement on how to meet the challenge. This one-year grant supports a four-part television series, coproduced by the Greater Washington Educational Telecommunications Association and Hedrick Smith Productions for the Public Broadcasting Service (PBS), that aims to stimulate broad public debate on the United States' economic position in the world. The series, to be broadcast on PBS in the fall of 1992, will cover economics in relation to national values, priorities, and traditions; compare the United States, Germany, and Japan; and examine the economic and social challenges facing this country. The series and an accompanying teacher's guide will be disseminated to secondary schools and colleges. Executive editor and correspondent of the series is Hedrick L. Smith, an author and former journalist with the *New York Times*. Also funding the series are the Corporation for Public Broadcasting, the German Marshall Fund, the Charles E. Culpeper and Arcana foundations, and the Japan Broadcasting Corporation.

WGBH Educational Foundation — $185,000

The United States faces real problems in its attempt to compete in the new global marketplace, among them obsolete management practices, an undereducated work force, and erratic fiscal policies. Yet the task of improving U.S. competitiveness generally, and its manufacturing capabilities specifically, has not emerged as a top national priority. "Made in America," a four-part television series to be produced by WGBH, Boston, for broadcast by the Public Broadcasting Service (PBS) in early 1992, aims to give a comprehensive view of this issue. The series will focus on the automobile, clothing, semiconductor, and commercial aircraft industries to illustrate how each has changed over the century and will contrast production systems in these older, more traditional industries with high-technology production. WGBH is also preparing a special four-page teacher's guide to facilitate use of the programs in classrooms across the country. Scheduled for broadcast before November 1992, "Made in America" is intended to spur a vigorous debate on this subject in the 1992 elections. William Grant is executive producer. This fifteen-month grant in support of the series is supplemented by funding from the Sloan Foundation, PBS, and corporate underwriters.

Inter-American Dialogue — $300,000

First convened in 1982, the Inter-American Dialogue is an independent nonpartisan group that seeks to improve communication about hemispheric problems and

relations among North American, Latin American, and Caribbean leaders and citizens. The group originally held periodic plenary sessions that were followed by the release of a consensus report. The dialogue is now making the transition to a freestanding institute on inter-American affairs, adding country-specific studies, task forces on bilateral and subregional policy topics, congressional seminars, and collaborative forums. In the future it will address such enduring issues as the narcotics trade, the integration of Latin America and the Caribbean into the world economy, the role of the state, and economic inequities. The group's outreach and public education activities will be strengthened in Washington, D.C., and throughout the Americas and include a more extensive publications program. Cochairs are Sol M. Linowitz, former U.S. ambassador to the Organization of American States, and Daniel Oduber, former president of Costa Rica. Among the participants are former government officials and leaders from the business, labor, academic, media, foundation, military, and religious communities. Until the transition to a freestanding institution is complete, the dialogue will continue to function under the auspices of the Aspen Institute. This grant renews Corporation support for another two years. Among other funders are the Ford, William and Flora Hewlett, John D. and Catherine T. MacArthur, and Andrew W. Mellon foundations; the Pew Charitable Trusts; the governments of Spain, Venezuela, and Chile; private sources in Brazil; and U.S. corporations.

Citizens Network for Foreign Affairs **$50,000**

Established in 1985, the Citizens Network for Foreign Affairs works to bring new voices into the public debate on international and foreign policy issues. Its major vehicle is a series of national public policy roundtables, held in cities throughout the United States approximately nine times a year, for which it seeks out and engages new leaders and institutions in foreign policy discussion. For each roundtable, about thirty private-sector leaders from a particular state meet with selected public officials and policy experts to study the stake that the state, the region, and the United States have in the international economy. Papers are commissioned that give an overview of the political and economic situation of the subject under discussion and offer ideas and scenarios for the nation's foreign relations in the future. Following the meeting, the papers and a postmeeting summary are disseminated widely to policymakers and business, civic, and educational groups within the state and the region and elsewhere. This grant, which extends the Corporation's support for another year, is funding three roundtables: the first, in Alabama, on economic development opportunities in Africa; the second, in Washington, D.C., on international economic issues generally; and the third, in Texas, on Latin America. All three roundtables will encourage the participation of local African American and/or Latino leaders. John H. Costello is president of the network.

NALEO Educational Fund **$300,000**

The NALEO Educational Fund, a national civic affairs organization whose membership comprises more than 4,200 Latino public officials, since 1985 has been studying

what factors affect the naturalization of Latinos and what can be done to encourage and help them become U.S. citizens. In a survey of Latino immigrants, NALEO (the acronym for the National Association of Latino Elected and Appointed Officials) found that most legal residents are interested in gaining U.S. citizenship. Because of a daunting array of financial, bureaucratic, and logistical obstacles, however, only 28 percent of all Latino immigrants successfully obtain citizenship. NALEO's pilot citizenship program in southern California provides a "one-stop" service that helps Latino immigrants complete five of the steps in the naturalization process in a relatively short time and prepare for the oral civics exam that constitutes part of the process. Applicants who become citizens automatically receive voter information from a local voter registration group. This two-year grant is allowing NALEO to expand the program to other areas with large Latino populations: northern and rural California; Cook Country, Illinois; and New York City. The Joyce Foundation is also supporting the project.

Southern Regional Council — $350,000

A public interest organization founded in 1944 and based in Atlanta, the Southern Regional Council works to increase minority political participation in the eleven states of the South. In 1987, with Corporation support, the council began a technical assistance project to assist minority officials and community leaders in preparing for the redistricting process following the 1990 census. As part of this project, minority elected officials have met as a group and with community leaders to develop redistricting strategies. The council has created a data base for key state leaders and staff persons engaged in redistricting to use in drawing alternative plans for new districts. This grant continues the Corporation's support for another two years. The council is continuing its publications, acting as a resource center in the South during the redistricting process, and working to develop an in-house software capacity that it can share with local groups wanting to present their own redistricting plans. Steve Suitts is executive director.

Southern Regional Council — $50,000

Unlike many of their counterparts in the South, minority legislators in the North and Midwest have not had extensive involvement with the Voting Rights Act of 1965 nor with the principles and politics that now govern fair redistricting based on new census data. Following a Corporation-funded feasibility study, the Southern Regional Council determined to extend its technical assistance programs on redistricting to selected states outside the South. Under this one-year grant the council's Electoral Participation Project has chosen twelve northern and midwestern states that have a high proportion of minority voters. Community leaders and public officials are being educated to the ways they may become involved in the redistricting process so they may challenge discriminatory plans and produce alternatives if needed. Under the direction of Antonio Harrison, a former Alabama state legislator, project staff members are working with African American and Latino legislators and local coalitions of civil rights, voting rights, and litigation groups to

ensure the voluntary adoption of fair redistricting plans. The Rockefeller, Joyce, and Congressional Black Caucus foundations are also contributing to the project.

NAACP Special Contribution Fund — $125,000

The NAACP is the oldest and largest civil rights organization in the country, with more than 2,200 community-based branches and youth units. From its inception it has worked to increase minority political participation, conducting voter registration drives, get-out-the-vote campaigns, and public education on the political process. This one-year grant has enabled the NAACP Special Contribution Fund, the NAACP's tax-exempt program arm, to plan a strategy for mobilizing minority communities to engage more effectively in redistricting, a process that can have an adverse impact on the ability of minority voters to achieve representation. Through its Voter Education Department, the national office provides technical assistance to affiliates in analyzing redistricting plans and challenging those that are discriminatory to ensure fairness toward the minority voting population. Workshops are being held at NAACP regional leadership training conferences, state conventions, and the national convention. Corporation funds are enabling the fund to educate and train local community leaders to engage more effectively in the redistricting process. The project concentrates on twelve states, primarily in the Northeast and Midwest, where African Americans are underrepresented in proportion to their numbers in the population.

Midwest/Northeast Voter Registration Education Project — $75,000

This one-year grant to the Midwest/Northeast Voter Registration Education Project, a nonpartisan organization established in 1982, supports the second phase of a three-year project to study the growth of the U.S. Latino population, determine the political implications, and encourage Latinos to participate in community redistricting. Executive director Juan Andrade, Jr., and project staff members have developed a computerized data base using the most recent census information to determine the ways in which political districts may be redrawn to reflect fairly the number of eligible Latino voters. They are now helping local community leaders understand and participate in the redistricting process by convening educational focus groups and regional and community redistricting conferences. The study is focused on communities with large Latino populations in Connecticut, Illinois, Indiana, Kansas, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, New York, Ohio, Pennsylvania, and Wisconsin. Project staff members are working closely with the Southwest Voter Registration Education Project and its research arm, the Southwest Voter Research Institute, and sharing information and technical assistance. The Joyce, Ford, and Rockefeller foundations are also supporting the project.

Southwest Voter Registration Education Project — $75,000

At almost 9 percent of the population, Latinos are the second largest and the fastest-growing minority group in the United States; moreover, while voter participation is

dropping in the general population, Latinos are registering and voting in ever greater numbers. Fewer than 2 percent of all elected officials are Latinos, however, a consequence in part of national, state, and local election district lines that dilute minority voting strength. The Southwest Voter Registration Education Project (SVREP) is working with the Southwest Voter Research Institute and the Mexican American Legal Defense and Educational Fund to ensure that new election districts following the 1990 census meet the one-person, one-vote requirement and protect Latinos' right to vote. The three groups are training community leaders to analyze the impact of proposed new boundaries, to draw and present alternative plans to government bodies or courts of law, and to develop community capability to litigate challenges to district plans that discriminate. SVREP is taking the lead for the first of these activities by organizing conferences about redistricting for Latino elected officials and leaders in five southwestern states with large Latino populations — Arizona, California, Colorado, New Mexico, and Texas. This fourteen-month grant continues the Corporation's 1990 support to SVREP, under which the project prepared for two of the conferences. The Rockefeller and Ford foundations are also supporting the project.

Discretionary grants

ACCESS: Networking in the Public Interest, toward a database of minority candidates for public service employment	$25,000
Human SERVE Campaign, toward support	$25,000
Institute for Puerto Rican Policy, toward a project on redistricting for Puerto Rican and other Latino communities in the Northeast	$25,000
Joint Center for Political and Economic Studies, toward a national leadership conference for African American elected and appointed officials	$25,000
Leadership Conference Education Fund, toward a public education campaign on civil rights	$25,000
National Coalition on Black Voter Participation, toward public education in African American communities about redistricting	$20,000
The Organizing Institute, toward a handbook on organizing	$5,000
Population Reference Bureau, toward a manual on the technical aspects of redistricting	$25,000
Public Service Consortium, as a final grant toward support	$25,000
Southwest Voter Research Institute, toward an educational program for U.S. Hispanic leaders on the proposed North American Free Trade Agreement	$25,000
University of Texas, Austin, for an international conference on the impact on labor of the proposed North American Free Trade Area	$23,760

Conflict resolution

Discretionary grants

Formative Evaluation Research Associates, as a final grant toward research and writing on militant white racism by Raphael S. Ezekiel	$25,000
Tatge/Lasseur Productions, toward a television documentary on the phenomenon of hatred	$25,000

Philanthropy and nonprofit institutions

The Foundation Center — $150,000

The Foundation Center was established by the Corporation and the Russell Sage Foundation in 1956 to assemble and maintain a public library of reports, grant indices, and studies from and about foundations. Since its founding it has come to operate full-service libraries in New York, Washington, D.C., Cleveland, and San Francisco and to support a network of 177 affiliated collections in public libraries in all fifty states, the Virgin Islands, and Puerto Rico, and in Australia, Canada, England, Japan, and Mexico. In addition the center publishes *The Foundation Directory* and other reference books and general titles in philanthropy and sponsors educational programs. To date the Corporation has made grants totaling $2,531,000 to the center — $1,735,000 toward its establishment and operating support and $796,000 for special purposes. A special 1987 grant enabled the center to expand its services in a number of ways, developing new computerized information systems and increasing publications, both print and electronic, for fuller listings of current foundations and corporate funders. The center, whose president is Sara L. Engelhardt, receives support from more than 500 other foundations and corporations nationwide.

Discretionary grants

Council on Foundations, toward 1991 membership support	$24,700
The Foundation Project, toward support	$8,500
Funders' Committee for Citizen Participation, toward support	$6,000
Independent Sector, toward a study of the needs of the international nonprofit sector	$25,000
Independent Sector, toward 1991 membership support	$7,400
National Committee for Responsive Philanthropy, toward support	$25,000
New York Regional Association of Grantmakers, toward 1991 membership support	$7,125
Nonprofit Coordinating Committee of New York, toward 1991 membership support	$975

Women and Foundations/Corporate Philanthropy, toward the 1992 "Far from Done" report on philanthropy and women's issues $25,000

Other

Alliance To Save Energy **$97,600**

In 1988 the Corporation supported a bipartisan effort known as Project 88, led by U.S. Senators Timothy E. Wirth and the late John Heinz, to develop an environmental agenda for U.S. public policymakers and the new president. The resulting report, *Harnessing Market Forces To Protect Our Environment: Initiatives for the New President,* presented innovative solutions to major environmental problems and identified economic incentives as a highly promising avenue for environmental protection. As a follow-up to the report, the Corporation provided a sixteen-month grant to the Alliance to Save Energy to prepare and disseminate a public policy paper on market-based incentives for environmental protection. Completed in May 1991, the report, *Project 88 — Round II. Incentives for Action: Designing Market-Based Environmental Strategies,* examines global climate change, hazardous and solid waste problems, and natural resource management and concentrates on implementation issues from economic, institutional, legal, and political perspectives. The report was distributed to all members of Congress, the White House, and relevant departments and agencies of the executive branch and to state environmental affairs departments and chief executive officers and others at major corporations. Senator Wirth chaired the project, which encompasses a plan for holding eight seminars and a policy forum, which are separately funded through Harvard University's John F. Kennedy School of Government. Robert Stavins, assistant professor of public policy at the Kennedy School, directed the project.

Stanford University **$50,000**

As part of its year-long centennial celebration in 1991, Stanford University convened a series of symposia concerning developments in the twentieth century that are now affecting the contemporary world. This one-year grant supported one symposium on "Ethnicity, Equity, and the Environment" at which scholars highlighted the cultural dimensions of today's environmental issues and explored the role of these issues in the genesis and resolution of interethnic conflicts. In case studies of the indigenous peoples of North America and of South America, Africa, and Eurasia, participants examined links between ethnic identity and environmental issues, development efforts that have accelerated interethnic conflict and environmental degradation, the growth of local economies, and ways that threats to the environment have prompted the growth of local organizations, economic initiatives, and cooperative projects among nations. The symposium was videotaped, and a written report is being widely disseminated.

Carnegie Hall Corporation **$100,000**

Of all the organizations founded or assisted by Andrew Carnegie, Carnegie Hall is probably the best known. Following its opening in 1891, it developed and has since maintained a tradition of excellence equalled by only a handful of concert halls throughout the world. In celebration of Carnegie Hall's 100th anniversary, the Corporation made a "once-in-a-century" contribution toward the hall's March 1991 international festival of youth orchestras, which hosted approximately 500 high school and college students in orchestras from Madrid, Tokyo, Sydney, Seoul, and New York City. Free of charge and open to the public, the festival not only provided an international showcase for the orchestras' instrumentalists, soloists, and conductors but also created an opportunity for an informal exchange of ideas and musical experiences among young performers from around an increasingly interdependent world.

New York Academy of Medicine **$92,000**

Although universities and other biomedical research institutions in New York City have led the world in pioneering research and medical discoveries in this century, there is increasing evidence that this leadership is now eroding. A prior grant from the Corporation to the New York Academy of Medicine enabled a group of representatives from the public and private sectors to plan a commission to develop specific ways to address this problem. Under this fourteen-month grant the academy is establishing a forty-member Commission on Biomedical Research in New York to examine two particularly pressing issues: the recruitment and retention of outstanding scientists and physicians and the promotion of university-industry relationships to support biomedical research. The commission, which will produce a report containing specific recommendations to be implemented within two to five years, is cochaired by John W. Rowe, president of the Mount Sinai School of Medicine, and Jeremiah A. Barondess, president of the academy.

Discretionary grants

Alliance To Save Energy, for a second printing of a public policy paper on economic incentives for environmental protection	$3,000
International Rescue Committee, toward education of the public and policymakers about Kurdish refugees	$25,000
Stanford University, toward a national long-range plan for research on sleep disorders by the National Commission on Sleep Disorders Research	$25,000

Publications and Nonprint Materials Resulting from Grants

Following is a selection of print and nonprint materials received in 1990-91 that resulted from projects funded wholly or in part by the Corporation. The list does not include papers published in journals, in newspapers, in magazines, or in books. For a complete index of such materials, write the publications office of the Corporation.

The education and healthy development of children and youth

Adolescent Health: Volume I: Summary and Policy Options; and *Volume III: Crosscutting Issues in the Delivery of Health and Related Services* (Washington, DC: Superintendent of Documents, U.S. Government Printing Office)

Adolescent Pregnancy in the South: A Mandate for Leadership (Washington, DC: Southern Governors' Association)

Adolescent Pregnancy Prevention in the South: Inventory of State Programs and Policies, 1991, an initiative of the Southern Governors' Association and Southern Legislative Conference (Washington, DC: Southern Regional Project on Infant Mortality)

Alive and Well?: A Research and Policy Review of Health Programs for Poor Young Children, by Lorraine V. Klerman with the assistance of Maura B. Parker (New York, NY: National Center for Children in Poverty, Columbia University School of Public Health)

America's Choice: High Skills or Low Wages!, executive summary of the report of the Commission on the Skills of the American Workforce (Rochester, NY: National Center on Education and the Economy)

Assessment in the Service of Instruction, This Year in School Science 1990, papers from the 1990 AAAS Forum for School Science, edited by Audrey B. Champagne, Barbara E. Lovitts, and Betty J. Calinger (Washington, DC: American Association for the Advancement of Science)

Berkeley Roundtable on the International Economy publications (Berkeley, CA: University of California, Berkeley):

The Decline of the U.S. Consumer Electronics Industry and Future Potential Re-entry, by Jeffrey A. Hart

Information Networks and Competitive Advantage: Vol. I: Issues for Government Policy and Corporate Strategy Development, by François Bar and Michael Borrus; *Vol. II: Comparative Reviews of Telecommunications Policies and Usage in the USA and Japan,* by François Bar, Michael Borrus, and Taizo Yakushiji; and *Vol. III: Comparative Reviews of Telecommunications Policies and Usage in Europe*

The Limits of Post-Industrialism and the Challenge to Labor: Changes in Work Organization in Three White Collar Service Industries, by Barbara Baran and Jana Gold

Biology Textbooks 1990: The New Generation, joint project of the National Center for Science Education and People for the American Way (Washington, DC: People for the American Way)

Business Impact on Education and Child Development Reform, by P. Michael Timpane and Laurie Miller McNeill (New York, NY: Committee for Economic Development)

Business/School Partnerships: A Path to Effective School Restructuring, precollege series, by Diana W. Rigden (New York, NY: Council for Aid to Education)

Carnegie Council on Adolescent Development publications (Washington, DC):

Adolescent Health Care Decision Making: The Law and Public Policy, working paper, by Josephine Gittler, Mary Quigley-Rick, and Michael J. Saks

Risk Taking in Adolescence: A Decision-Making Perspective, working paper, by Lita Furby and Ruth Beyth-Marom

Turning Points: Preparing American Youth for the 21st Century, abridged version, recommendations for transforming middle grade schools, by the Task Force on Education of Young Adolescents

The Child Care and Development Block Grant and Child Care Grants to States under Title IV-A of the Social Security Act: A Description of Major Provisions and Issues to Consider in Implementation, by Helen Blank (Washington, DC: Children's Defense Fund)

Child Health in 1990: The United States Compared to Canada, England and Wales, France, The Netherlands, and Norway, proceedings of a conference (March 18-19, 1990, Washington, DC), supplement to *Pediatrics,* volume 86, number 6 (Elk Grove Village, IL: Pediatrics Department, American Academy of Pediatrics)

Choices for Children: An Action Kit to Implement the Children's Television Act (Cambridge, MA: Action for Children's Television)

The Choices that Young Black Women Make: Education, Employment, and Family Formation, by Margaret C. Simms (Washington, DC: Joint Center for Political and Economic Studies)

Community-Based Family Support and Education Programs: Something Old or Something New?, revised, by Heather Weiss and Robert Halpern (New York, NY: National Center for Children in Poverty, Columbia University School of Public Health)

The Declining Economic Status of Black Children: Examining the Change, summary of findings, by Cynthia Rexroat (Washington, DC: Joint Center for Political and Economic Studies)

"Degrassi High," television series for adolescents, third season (Term 4), fifteen episodes, VHS video and 16mm film, closed captioned, produced by Playing with Time and WGBH Boston with Taylor Productions, in association with the Canadian Broadcasting Corporation (Boston, MA: WGBH Educational Foundation)

Degrassi High: Discussion & Activity Guide, Term 5 (Boston, MA: WGBH Educational Foundation)

The Dynamics of Trade and Employment, edited by Laura D'Andrea Tyson, William T. Dickens, and John Zysman (Cambridge, MA: Ballinger Publishing Company, subsidiary of Harper & Row, Publishers)

Early Childhood and Family Education: Analysis and Recommendations of the Council of Chief State School Officers (Orlando, FL: Harcourt Brace Jovanovich, Publishers)

First Hand Learning: Teacher Education in Science Museums: Volume One: Findings and Recommendations; and *Volume Two: Case Studies*, prepared by Mark St. John with assistance from Catherine Daniels *et al* (Washington, DC: Association of Science-Technology Centers)

From Rhetoric to Action: State Progress in Restructuring the Education System (Washington, DC: National Governors' Association)

Great Explorations in Math and Science (GEMS) Project (Berkeley, CA: Lawrence Hall of Science, University of California):

> *Acid Rain*, teacher's guide, grades 6-10, by Colin Hocking, Jacqueline Barber, and Jan Coonrod
>
> *Global Warming and the Greenhouse Effect*, teacher's guide, grades 7-10, by Colin Hocking *et al*
>
> *A Parent's Guide to Great Explorations in Math & Science (GEMS)*, Or, How to Help Your Kids Succeed in Math and Science and Have Fun Yourself!, by Jacqueline Barber and Lincoln Bergman
>
> *To Build a House: GEMS and the "Thematic Approach" to Teaching Science*, by Jacqueline Barber, Lincoln Bergman, and Cary Sneider

Harvard Journal on Legislation, volume 28, number 2, issue comprises papers from symposium, "Investing in Our Children's Future: School Finance Reform in the '90s," held at Harvard Law School, February 9, 1991 (Cambridge, MA: Harvard Law School)

Homeless Children and Youth: A New American Dilemma, by the Johns Hopkins Institute for Policy Studies, edited by Julee H. Kryder-Coe, Lester M. Salamon, and Janice M. Molnar (New Brunswick, NJ: Transaction Publishers)

"How Scientists Know about Human Evolution," VHS videotape (Berkeley, CA: The National Center for Science Education)

Human Capital and America's Future: An Economic Strategy for the '90s, Johns Hopkins Institute for Policy Studies book, edited by David W. Hornbeck and Lester M. Salamon (Baltimore, MD: Johns Hopkins University Press)

It All Adds Up! Math & Science Education Policies for the Future, by David Kysilko and Janice Earle (Alexandria, VA: National Association of State Boards of Education)

Making the System Work for Poor Children, by Rick Weissbourd, paper developed from discussions of the Executive Session on Making the System Work for Poor Children, Malcolm Wiener Center for Social Policy, John F. Kennedy School of Government, Harvard University (Cambridge, MA: Malcolm Wiener Center for Social Policy)

Math Matters: Kids Are Counting on You (English and Spanish editions), kit, contains brochure, booklets, poster, stickers, calculator, and VHS videotape (Chicago, IL: National PTA)

Moving Senior Technical Professionals into New Careers as Teachers, Improving Science and Mathematics Teaching: A Model for Community-Based Efforts, by the Math/Science Education Group (New York, NY: National Executive Service Corps)

The Power Project: Operation SMART Activity Guide and *Spinnerets and Know-How: Operation SMART Planning Guide,* A Program to Encourage Every Girl in Science, Math, and Relevant Technology (New York, NY: Girls Incorporated [formerly Girls Clubs of America])

"Race to Save the Planet," ten-part series on videotape, VHS and ¾" formats, produced by WGBH Science Unit (Boston, MA: WGBH Educational Foundation). Accompanying guides are:

Activity Guide, high school teacher's guide, environmental issues across the curriculum

Community Discussion Guide, compiled by Terry M. D'Addio and Walter H. Corson

Facilitator's Resource Guide, by Donald B. Conroy

Telecourse Faculty Guide, guide only available to teachers who use the television course, by Charles D. Aldrich with Edward C. Wolf

Telecourse Study Guide, for students, by Edward C. Wolf

Viewer's Guide, by Donald B. Conroy

"Reading Rainbow" series (Lincoln, NE: Nebraskans for Public Television):

"Opt: An Illusionary Tale," VHS videotape, science program for Broadcast Season IX, closed captioned

"Racoons and Ripe Corn"/"Deer at the Brook"/"Come out Muskrats," VHS videotape, science programs for Broadcast Season IX, closed captioned

Reading Rainbow: Broadcast Season IX, 1991 Booklist, consists of all book titles for Broadcast Season IX (1991)

Research and the Renewal of Education, report from the National Academy of Education, Project on Funding Priorities for Educational Research (Stanford, CA: National Academy of Education)

Results in Education: 1990, The Governors' 1991 Report on Education (Washington, DC: National Governors' Association)

Saving Minds: Black Churches and Education, by Yolanda S. George *et al*, with executive summary by Shirley M. Malcom (Washington, DC: American Association for the Advancement of Science)

Science and Public Policy Seminars (Washington, DC: Federation of Behavioral, Psychological, and Cognitive Sciences):

Family Violence: Has Science Met Its Match?, by Robert E. Emery

The Fourth R, The Ability to Reason, by Robert Glaser

May I Have Your Attention Please?, by Michael I. Posner

Psychosocial Research Is Essential for Preventing and Treating AIDS, by Thomas J. Coates

Toward Understanding Stock Market Movements: A Marriage of Psychology and Economics, by Donald C. Hood

What Does Learning Have to Do with Weight Loss and Cancer?, by Ilene L. Bernstein

Why Jane and Johnny Aren't Learning Science Yet, by Susan E. Carey

"Science and Society," audiotape of two-part radio program broadcast on "Soundings" (Research Triangle Park, NC: National Humanities Center)

Science as a Way of Knowing, VII: Neurobiology and Behavior; and *A Conceptual Framework for Biology, Part III*, by the Committee on Education of the American Society of Zoologists (Thousand Oaks, CA: American Society of Zoologists)

Science Education in the States: A Survey, state legislative report, volume 15, number 15, by Constance L. Koprowicz (Washington, DC: National Conference of State Legislatures)

Science Helper K-8, kit, contains User Manual, Retrieval Software [2 5¼" diskettes], CD-ROM Access Software [5¼" diskette], and Science Helper K-8 [CD-ROM], 5.25", IBM, produced by PC-SIG and the University of Florida (Sunnyvale, CA: PC-SIG)

The South's Agenda for Healthy Infants & Families, 1991-1992 (Washington, DC: Southern Regional Project on Infant Mortality)

The State of America's Children 1991 (Washington, DC: Children's Defense Fund)

Taking Charge: State Action on School Reform in the 1980s, by Denis P. Doyle, Bruce S. Cooper, and Roberta Trachtman (Indianapolis, IN: Hudson Institute)

Technical Talent from the Military and Industry: A Resource for Our Schools, proceedings of a meeting held at the IBM Palisades Advanced Business Institute, May 30-31, 1990, by the Math/Science Education Group (New York, NY: National Executive Service Corps)

To Advance Learning: A Handbook on Developing K-12 Postsecondary Partnerships, by Manuel N. Gomez *et al* (Lanham, MD: University Press of America)

Toward High and Rigorous Standards for the Teaching Profession: Initial Policies and Perspectives of the National Board for Professional Teaching Standards, 3rd edition (Detroit, MI: National Board for Professional Teaching Standards)

The Unfinished Agenda: A New Vision for Child Development and Education, statement by the Research and Policy Committee of the Committee for Economic Development (New York, NY: Committee for Economic Development)

The University of Chicago School Mathematics Project (Glenview, IL: Scott, Foresman and Company):

- *Functions, Statistics, and Trigonometry*, by Rheta N. Rubenstein *et al*
- *Functions, Statistics, and Trigonometry: Teacher's Edition*, by Rheta N. Rubenstein *et al*
- *Geometry*, by Arthur Coxford, Zalman Usiskin, and Daniel Hirschhorn
- *Geometry: Teacher's Edition*, by Arthur Coxford, Zalman Usiskin, and Daniel Hirschhorn
- *Precalculus and Discrete Mathematics*, by Anthony L. Peressini *et al*
- *Precalculus and Discrete Mathematics: Teacher's Edition*, by Anthony L. Peressini *et al*

Visions of Excellence, VHS videotape (Detroit, MI: National Board for Professional Teaching Standards)

Ways and Means for Children and Families, Local Officials Guide, edited by Carolyn Grose and John E. Kyle (Washington, DC: National League of Cities)

Women of Color in Mathematics, Science & Engineering: A Review of the Literature, by Beatriz Chu Clewell and Bernice Anderson (Washington, DC: Center for Women Policy Studies)

Strengthening human resources in developing countries

Africa Leadership Forum publications (English and French editions) (New York, NY/Ota, Nigeria):

Africa Forum, A Journal of Leadership and Development, quarterly, volume 1, numbers 1-2

The Challenges of Agricultural Production and Food Security in Africa, report and proceedings of an international conference by the Africa Leadership Forum (July 27-30, 1989, Ota, Nigeria), edited by Hans d'Orville

Elements of Development, edited by Olusegun Obasanjo and Akin Mabogunje

The Leadership Challenge of Economic Reforms in Africa, Fourth Conference, Africa Leadership Forum, held at the Brookings Institution (September 28-29, 1989, Washington, DC), edited by Hans d'Orville

Regional Cooperation between Benin and Nigeria, report on a conference organized by the PanAfrican Social Prospects Centre and the Africa Leadership Forum (September 22, 1990, Cotonou, Benin)

Report on a Brainstorming Meeting for a Conference on Security, Stability, Development and Co-operation in Africa (November 17-18, 1990, Addis Ababa, Ethiopia)

Report on the High-Level Conference on the Impact of Changes in Eastern Europe on Africa (April 17-18, 1990, Paris, France)

Statements and papers presented at the international conference on "Population, Environment, and Climatic Change — Their Impact on Development in Africa" of the Africa Leadership Forum (June 21-24, 1990, Ota, Nigeria):

Africa's Development Crisis: Agricultural Stagnation, Population Explosion, and Environmental Degradation, with appendices and tables, address by Robert S. McNamara

Climate Change and Its Impact on African Development, by G. O.P. Obasi

Impact of Global Climate Change on Populations and Socio-Economic Structures and Activities in Africa: A Focus on Solutions, by A. Chidi Ibe

Intervention of Mr. S. A. Ogunleye at the Africa Leadership Forum Conference Held at Ota, Nigeria, on 21-24 June, 1990

Population, Development, Environment and Climatological Changes: A Global Perspective, by Alphonse MacDonald

Population Dynamics in Africa: Can We Influence the Trends?, by Ahmed Bahri

Population, Environment and Climatic Change: Their Impact on Development in Africa, opening address by Olusegun Obasanjo

Potential Effects of Climate Change on the African Environment, by S. K. Imbamba

Bishopscourt Update: News and Documentation from the Office of Archbishop Desmond Tutu of Cape Town, newsletter, numbers 3-9, also available on CPSANET, the Anglican computer network (Claremont, South Africa: Friends of Bishopscourt)

Brundtland Bulletin: Quarterly Review of Progress towards Sustainable Development, volumes 11-12 (Geneva, Switzerland: Centre for Our Common Future)

Building on a Decade of Achievement: A Report on the Tenth Session of the Committee on the Elimination of Discrimination against Women, by Andrew Byrnes (Minneapolis, MN: International Women's Rights Action Watch)

Bwell Wata Clock, picture booklet (Freetown, Sierra Leone: Sierra Leone Home Economics Association and Sierra Leone Midwives Association)

A Chance to Live: The Heroic Story of the Global Campaign to Immunize the World's Children, by June Goodfield (New York, NY: Macmillan Publishing Company)

Computer and CD-ROM Capability in Sub-Saharan African University and Research Libraries, by Lisbeth A. Levey (Washington, DC: American Association for the Advancement of Science)

Conference Report: National Technical Workshop on Health Research and Health Policy in Nigeria (April 23-27, 1990, Abeokuta, Ogun State, Nigeria), by Olayiwola A. Erinosho, John Ohiorhenuan, and Fidelis Ogwumike (Washington, DC: International Health Policy Program)

Educational Research in the SADCC Region: Present and Future, proceedings of the BOLESWA Educational Research Symposium (August 8-11, 1989, Gaborone, Botswana), edited by Gaontatlhe Mautle and Frank Youngman (Gaborone, Botswana: Botswana Educational Research Association)

Health Policy Training and Research Centres: Capacity-Building in Africa and Asia, proposal to the International Health Policy Program from the Centres Working Group, edited by Alexandra Jones (Washington, DC: International Health Policy Program)

Lessons from the Vanguard, how social action movements work to shape the American conscience (White Plains, NY: The U.S. Committee for Worldwise 2000)

A New Public Sector Maternal Care Facility in a Rural Nigerian Community: Its Influence on the Traditional and Private Sector and *Use of Services for Maternal Health Care by a Rural Nigerian Community*, Takemi Program in International Health research paper, by Boniface Nwakoby (Boston, MA: Takemi Program in International Health)

Pharmacoepidemiology in Developing Countries, proceedings of a conference held at the Rockefeller Conference Center (April 1990, Bellagio, Italy), supplement II, volume 44, *Journal of Clinical Epidemiology*, edited by Calvin M. Kunin (Elmsford, NY: Pergamon Press)

Proceedings of the Annual Workshop of Researchers (October 30–November 3, 1990, Banjul, The Gambia) (Ibadan, Nigeria: West African Technology Policy Studies Network, Nigerian Institute of Social and Economic Research)

Proceedings of the Annual Workshop of Researchers: Eastern and Southern African Technology Policy Studies Network — EATPS (June 3-7, 1991, Nairobi, Kenya), by Hasa Mfaume Mlawa and Fred Otieno (Dar es Salaam, Tanzania: Eastern and Southern African Technology Policy Studies Network, Institute of Development Studies, University of Dar es Salaam)

Proceedings of the Inaugural Meeting of the Caribbean Academy of Sciences (May 16-17, 1988, Port of Spain, Trinidad), edited by R. Saunders *et al* (St. Augustine, Trinidad: Caribbean Academy of Sciences, University of the West Indies)

Promoting Health through Women's Functional Literacy and Intersectoral Action, report of meeting, Ministry of Health and World Health Organization (November 12-16, 1990, Lusaka, Republic of Zambia) (Geneva, Switzerland: World Health Organization)

Promoting National Security and Advancing America's Interests Abroad: United States Budget for a New World Order, by John W. Sewell and Peter M. Storm (Washington, DC: Overseas Development Council)

Report on the Uganda National "ENHR" Workshop, 18th-20th February, 1991 (Mweya Lodge) (Entebbe, Uganda: Ministry of Health & Uganda National Council for Science & Technology)

Research for Development: A Grants Program for the Third World, by Michael P. Greene (Washington, DC: National Academy Press)

Safe Motherhood Programs: Options and Issues, by Deborah Maine (New York, NY: Center for Population and Family Health, Columbia University)

Scale for Baby Way Jus Born, picture booklet (Freetown, Sierra Leone: Sierra Leone Home Economics Association and Sierra Leone Midwives Association)

Science and Technology: Implications for Communication Development in Africa, final report of the ACCE 7th Biennial Conference (October 22-26, 1990, Ouagadougou, Burkina Faso) (Nairobi, Kenya: African Council for Communication Education)

South African Information Exchange Working Papers (New York, NY: Institute of International Education):

> *Corporate Social Investment in South Africa,* updated version, by Ann McKinstry Micou
>
> *South African Trusts/Foundations,* by Ann McKinstry Micou
>
> *U.S. Support Organizations Raising Money for South African Causes: An Update,* by Ann McKinstry Micou and Sheila Avrin McLean

The Southern Africa Policy Forum: Fourth Conference, April 1-6, 1991: Does the End of Apartheid Mean the Beginning of Democracy?, convened by Dick Clark, edited by Steven McDonald (Queenstown, MD: Aspen Institute)

United States Budget for a New World Order: Promoting National Security and Advancing America's Interests Abroad, FY 1992, by John W. Sewell and Peter M. Storm (Washington, DC: Overseas Development Council)

Women's Human Rights and Reproduction: Capacity and Choice, by Marsha A. Freeman (Minneapolis, MN: International Women's Rights Action Watch)

Cooperative security

After the Cold War: Europe's New Political Architecture, by Alpo M. Rusi (Basingstoke, United Kingdom: Macmillan, in assoc. with Institute for East-West Security Studies)

American Committee on U.S.-Soviet Relations publications (Washington, DC):

Building Democratic Institutions series:

A Deputy of the Russian Supreme Soviet Studies Federalism in the United States

Four Soviet Deputies Visit the United States to Discuss the Legislative Work of the Supreme Soviet in 1990

The Russian Minister of Justice Studies the American Legal System in the United States

Soviet Agricultural Officials Observe Private Farming Operations in the United States

Analysis of the FY 1992-93 Defense Budget Request with Historical Defense Budget Tables, by Stephen Alexis Cain (Washington, DC: Defense Budget Project)

Assessment of the All-Union Law on Public Association: Lawyers Committee for Human Rights Briefing Memo on Soviet Legal Reform, by Glenn S. Kolleeny *et al* (New York, NY: Lawyers Committee for Human Rights)

Avoiding War: Problems of Crisis Management, edited by Alexander L. George (Boulder, CO: Westview Press)

Bombs from Beijing: A Report on China's Nuclear and Missile Exports, by Gary Milhollin and Gerard White (Washington, DC: Wisconsin Project on Nuclear Arms Control)

Brookings Institution publications (Washington, DC):

Assessing the Adversary: Estimates by the Eisenhower Administration of Soviet Intentions and Capabilities, occasional paper, by Raymond L. Garthoff

Command Performance: The Neglected Dimension of European Security, by Paul B. Stares

The Effects of Warning on Strategic Stability, occasional paper, by Bruce G. Blair and John D. Steinbruner

Perestroika and Soviet National Security, by Michael MccGwire

Trappings of Power: Ballistic Missiles in the Third World, by Janne E. Nolan

"Cambridge Forum" radio broadcasts on audiocassette (Cambridge, MA):

"The Changing US-USSR Relationship," April 26, 1989, by Thomas Schelling

"Deterrence and Detente," August 1989, by McGeorge Bundy

"Education to Prevent Nuclear War," February 22, 1989, by Martin Sherwin

"Living in the Nuclear Age," May 3, 1989, by Zvi Dor-Ner

"Manmade Death," January 18, 1989, by Richard Rhodes

"Negotiating Good US/Soviet Relations," September 21, 1988, by Roger Fisher

"Nonprovocative Defenses to Avoid War," November 9, 1988, by Randall Forsberg

"Nuclear Proliferation: A Look Ahead," March 8, 1989, by Marvin Miller

"A Strategy for Peace," March 19, 1989, by Sissela Bok

"Will Gorbachev Succeed or Fail?", October 30, 1988, by Robert Legvold

Chinese Nuclear Weapons: A Current and Historical Overview, Nuclear Weapons Databook working paper, by Richard W. Fieldhouse (Washington, DC: Natural Resources Defense Council)

Combatting Chemical Weapons Proliferation: The Role of Sanctions and Assurances, Henry L. Stimson Center occasional paper, by Lewis A. Dunn and James A. Schear (Washington, DC: Henry L. Stimson Center)

Conflict Reduction in Regional Conflicts: Restructuring Soviet-American Relations in the Third World, summary of a conference held at the Bologna Center of the Paul H. Nitze School of Advanced International Studies, Johns Hopkins University (June 1990, Bologna, Italy), by R. Craig Nation (Washington, DC: Paul H. Nitze School of Advanced International Studies, Johns Hopkins University)

Critical Choices: Setting Priorities in the Changing Security Environment, proceedings of the Fifth Annual AAAS Colloquium on Science and International Security (December 13-14, 1990, Washington, DC), edited by Eric H. Arnett, Elizabeth J. Kirk, and W. Thomas Wander (Washington, DC: American Association for the Advancement of Science)

"Dr. Strangelove's Children: The Global Spread of Nuclear Weapons," four-part radio documentary on two audiocassettes: "Atoms for Peace?" and "The Buddha Is Smiling"; "The Islamic Bomb" and "Decade of Decision" (Portland, OR: Michael O'Rourke & KBOO Radio)

Ending the Cold War at Home, public policy report of the American Civil Liberties Union, prepared by Jeanne M. Woods (Washington, DC: Center for National Security Studies)

Ending the Production of Fissile Materials for Weapons: Verifying the Dismantlement of Nuclear Warheads, The Technical Basis for Action, preliminary report in collaboration with the Committee of Soviet Scientists for Global Security & Center for Program Studies of the USSR Academy of Sciences (Washington, DC: Federation of American Scientists)

Enhancing European Security: Living in a Less Nuclear World, by Ian M. Cuthbertson and David Robertson (New York, NY: St. Martin's Press, in assoc. with the Institute for East-West Security Studies)

Facing the Future: American Strategy in the 1990s, Aspen Strategy Group report (Lanham, MD: Aspen Strategy Group & University Press of America)

The Future of the U.S.-Soviet Nuclear Relationship, by the Committee on International Security and Arms Control, National Academy of Sciences (Washington, DC: National Academy Press)

Glasnost in Jeopardy: Human Rights in the USSR, Helsinki Watch report (New York, NY: Helsinki Watch)

Human Reliability and Safety in the Handling of Nuclear Weapons, revised conference paper from the Symposium on Accidental Nuclear War Prevention, Center for Peace and Conflict Research, University of Copenhagen (June 29-July 1, 1990, Copenhagen, Denmark), by Herbert L. Abrams (Stanford, CA: Stanford University)

Institute for East-West Security Studies Occasional Paper Series (New York, NY):

Military Doctrine: Change in the East?, by Pal Dunay

NATO: An Institution under Threat?, by Jan Willem Honig

Terrorism: Pragmatic International Deterrence, by Richard Allan

International Negotiation: Analysis, Approaches, Issues, The Jossey-Bass Social and Behavioral Science Series & The Jossey-Bass Management Series, publication of the Processes of International Negotiations (PIN) Project, edited by Victor A. Kremenyuk *et al* (San Francisco, CA: Jossey-Bass Inc., Publishers)

Johns Hopkins Foreign Policy Institute publications (Washington, DC: Paul H. Nitze School of Advanced International Studies, Johns Hopkins University):

Changing Roles and Shifting Burdens in the Atlantic Alliance, FPI Policy Study Groups

Shaping the Peace: Postwar United States Policy in the Middle East and the Gulf, policy consensus report

The United States & NATO in an Undivided Europe, report by the Working Group on Changing Roles and Shifting Burdens in the Atlantic Alliance

Laser ASAT Test Verification, study group report (Washington, DC: Federation of American Scientists)

Legislative Violations of Human Rights in the Soviet Union: Assessment of Key 1991 Legislation, Including Laws on the KGB, on Exit and Entry, and on the Resolution of Labor Disputes, briefing paper (New York, NY: Lawyers Committee for Human Rights)

Licensing Mass Destruction. U.S. Exports to Iraq: 1985-1990, by Gary Milhollin (Washington, DC: Wisconsin Project on Nuclear Arms Control)

Naval Arms Control: A Strategic Assessment, by Barry M. Blechman *et al* (New York, NY: St. Martin's Press)

New Approaches to Security in the Asian-Pacific Region, a conference report by the Center for International Security and Arms Control at Stanford University and the Institute of Far Eastern Studies of the Soviet Academy of Sciences (Stanford, CA: Center for International Security and Arms Control, Stanford University)

Organizations and Nation-States: New Perspectives on Conflict and Cooperation, edited by Robert L. Kahn and Mayer N. Zald (San Francisco, CA: Jossey-Bass Inc., Publishers)

The RAND Publications Series, Project on Avoiding Nuclear War: Managing Conflict in the Nuclear Age (Santa Monica, CA: RAND/UCLA Center for Soviet Studies, RAND Corporation):

> *Exploring Europe's Future: Trends and Prospects Relating to Security,* a RAND Note, by Johan Jorgen Holst
>
> *Managing Military Operations in Crises: A Conference Report,* edited by Preston Niblack
>
> *U.S.-Soviet Relations in the Post-Cold War Era: Implications for Korea,* occasional paper, paper presented at the International Conference on Perestroika and Korea's Relations with the United States and the Soviet Union (October 8-10, 1990, Seoul, Korea), by Arnold L. Horelick

Reforging European Security: From Confrontation to Cooperation, edited by Kurt Gottfried and Paul Bracken with contributions by Jonathan Dean *et al* (Boulder, CO: Westview Press)

Responding to Changing Threats: A Report of the Defense Budget Project's Task Force on the FY 1992–FY 1997 Defense Plan (Washington, DC: Defense Budget Project)

The Rise of Nations in the Soviet Union: American Foreign Policy and the Disintegration of the USSR, edited by Michael Mandelbaum (New York, NY: Council on Foreign Relations Press)

Science and the Soviet Social Order, edited by Loren R. Graham (Cambridge, MA: Harvard University Press)

The Soviet Economy in Crisis, Critical Issues 1991, produced under the Studies Program, by Michael Mandelbaum (New York, NY: Council on Foreign Relations Press)

Soviet Strategy in the Middle East, Berkeley-Stanford Program in Soviet Studies, by George W. Breslauer, with contributions by Galia Golan *et al* (Winchester, MA: Unwin Hyman)

Strengthening the Chemical Weapons Convention through Aerial Inspections, Henry L. Stimson Center occasional paper, by Amy Smithson and Michael Krepon (Washington, DC: Henry L. Stimson Center)

The Supreme Soviet Defense and Security Committee: Limited Oversight Capabilities, by Jennifer Scheck Lee (Palo Alto, CA: Global Outlook Education Institute)

Terrorism and Democracy, by Stansfield Turner (Boston, MA: Houghton Mifflin Company)

United States-Soviet and East European Relations: Building a Congressional Cadre, Eighth Conference, August 25-31, 1990, convened by Dick Clark (Queenstown, MD: The Aspen Institute)

US-USSR Strategic Offensive Nuclear Forces, 1946-1989, Nuclear Weapons Databook working paper, by Robert Standish Norris and Thomas B. Cochran (Washington, DC: Natural Resources Defense Council)

Verification: Monitoring Disarmament, Pugwash monograph, edited by Francesco Calogero, Marvin L. Goldberger, and Sergei P. Kapitza (Boulder, CO: Westview Press)

Special projects

"Beyond Hate," with Bill Moyers, VHS videotape (New York, NY: Tatge/Lasseur Productions)

Carnegie Commission on Science, Technology, and Government Reports (New York, NY: Carnegie Commission on Science, Technology, and Government):

In the National Interest: The Federal Government in the Reform of K-12 Math and Science Education

Science, Technology, and Congress: Expert Advice and the Decision-Making Process

Technology and Economic Performance: Organizing the Executive Branch for a Stronger National Technology Base

Conflict Resolution in Africa, edited by Francis M. Deng and I. William Zartman (Washington, DC: Brookings Institution)

Inter-American Dialogue publications, under the auspices of the Aspen Institute (Washington, DC: Inter-American Dialogue):

The Americas in a New World, 1990 report

Latin American Democracy in the 1990s: The Challenges Ahead, by Peter Hakim and Abraham F. Lowenthal

The United States and Latin America in the 1990s: Changing U.S. Interests and Policies in a New World, by Abraham F. Lowenthal

Legislatures in the States: Progress, Problems, and Possibilities, report of the Symposium on the Legislature in the Twenty-First Century (April 1990, Williamsburg, Virginia) (New Brunswick, NJ: Eagleton Institute of Politics, Rutgers University)

Project 88 — Round II. Incentives for Action: Designing Market-Based Environmental Strategies, public policy study sponsored by Senator Timothy E. Wirth, Colorado, and Senator John Heinz, Pennsylvania (Washington, DC: Project 88 — Round II)

Redistricting: A Guide to Technical Issues for Minority Groups (Washington, DC: Population Reference Bureau)

Voter Purging: The Perils and the Promise, by Kim Mangum, Jamie Cooper, and Robert Stumberg (Washington, DC: Center for Policy Alternatives)

Report on Finance and Administration

Report of the Treasurer

The annual financial statements and schedule of appropriations and payments for Carnegie Corporation of New York appear on pages 136 through 181. The following comments and data supplement that information.

Investments

On September 30, 1991, the market value of the Corporation's investments was $967.6 million, compared with $829.1 million on September 30, 1990, and $335.0 million on September 30, 1981. This is an increase of about 188.8 percent in ten years. Adjusted for inflation, and after allowing for expenses, the Corporation's investments have grown at a compound annual real rate of 7.5 percent. During this period, the trustees authorized $378.0 million for grants, administrative expenses, and federal taxes.

The Corporation's principal investment objective is to achieve long-term total return, consisting of capital appreciation as well as dividend and interest income, sufficient to maintain the purchasing power of the endowment while continuing to support the programs of the Corporation. The portfolio had a total return of 23.9 percent for the fiscal year ended September 30, 1991. The annual rate of return over the last ten years has been 17.3 percent, compounded annually. In terms of dollars of constant purchasing power, the total return over the last ten years has been 13.1 percent, compounded annually. Since the Corporation has on average paid out 5.6 percent each year in that period, the Corporation has on average added 7.5 percent real return to the portfolio, for each of those years. The table below shows the composition of investment assets on September 30.

Investment assets on September 30, 1991

	Market value	Percent of total	Prior year percent of total
Equities			
Common stocks	$350,239,974	36.2	33.5
Convertibles	5,807,255	.6	.9
Fixed-income securities			
Short term	21,847,158	2.3	3.1
Long term	371,841,145	38.4	40.5
Limited partnership interests			
Real estate	15,702,719	1.6	1.8
Venture capital	15,532,845	1.6	1.5
Other	168,969,803	17.5	16.5
Other investments	17,629,399	1.8	2.2
	$967,570,298	100.0	100.0

The Corporation's trustees delegate investment decisions to investment managers who operate within investment policies and standards set by the trustees. Seventy-five percent of the funds are managed by three core managers who may invest in both fixed-income securities and equities, domestic and international. The remaining 25 percent of the funds are invested by managers who specialize in particular types of investments — special equities, global fixed income, venture capital, and real estate. The finance and administration committee of the board of trustees meets periodically with the core managers.

The committee has requested the core managers to maintain between 40 and 60 percent of the assets in equity securities. At September 30, 1991, 49 percent of the assets held by the core managers was invested in equity securities.

During the 1985 fiscal year, the Corporation authorized its managers to invest in foreign securities, with the objective of enhancing the overall rate of investment return. On September 30, 1991, approximately 15.4 percent of the Corporation's investment assets was invested in foreign securities and currencies.

While delegating authority for individual investment decisions to outside managers, the trustees retain ultimate responsibility for investment policy, including policy relating to the public responsibilities of the corporations represented in the investment portfolio.

Fixed assets

The Corporation capitalizes purchases of fixed assets. Fixed assets include leasehold improvements, furniture, and equipment. Furniture and equipment is depreciated when placed in service, based on useful life. Leasehold improvements are amortized when placed in service, over the remaining life of the lease. Fixed assets net of accumulated amortization and depreciation totaled $3,731,469 at September 30, 1991.

Investment income

Interest, dividends, and income from partnerships for the year ended September 30, 1991, was $49,521,040, compared with $65,118,668 in the preceding year. Net realized gains on investments were $48,069,255, compared to $24,186,987 in 1990. Investment expenses, consisting primarily of asset management fees, amounted to $3,053,473 in the fiscal year ended September 30, 1991. Interest, dividends, income from partnerships, and realized gains on investments, when combined with other income, produced net realized investment income of $94,556,261.

Appropriations and expenses

Each year, the trustees appropriate funds to be used for grants and for projects administered by the officers. Because many of the grants involve multiyear commitments, about one-half of the appropriated funds are spent in years subsequent to the fiscal year in which the original appropriation is made. A total of $44,948,091 was appropriated in the fiscal year ended September 30, 1991.

Any balance held by a grantee after a project has been completed or terminated is refunded to the Corporation. If the balance has not been distributed to the

grantee, it is cancelled by the Corporation. Refunds and cancellations are listed on page 181 as adjustments of appropriations. For the year ended September 30, 1991, they totaled $296,090. Net appropriations, therefore, were $44,652,001. A complete list of grants and other appropriations is shown on pages 141 to 180.

The general administration and program management expenses were $7,475,626 in the fiscal year ended September 30, 1991, compared with $7,190,741 in the previous fiscal year. Amounts spent for "direct charitable activities" were $2,302,177 in 1991 and $2,187,188 in 1990. Direct charitable activities include services provided directly to other exempt organizations, governmental bodies, or the general public. Examples of such services are the provision of technical assistance to grantees and potential grantees; the conduct of educational conferences; research; the publication and dissemination of educational materials; and service on boards of other charitable organizations or public commissions.

The schedule below shows a breakdown of total expenses into general administration and program management expenses, investment expenses, and direct charitable activities expenses for the year ended September 30, 1991.

	General administration and program management expenses	Investment expenses	Direct charitable activities expenses	Total
Salaries	$3,061,557	$ 149,347	$ 866,665	$ 4,077,569
Investment advisory and custody fees	—	2,731,529	—	2,731,529
Employee benefits	1,193,401	59,345	346,164	1,598,910
Rent	1,162,126	59,564	337,583	1,559,273
Amortization and depreciation	538,369	—	—	538,369
Quarterly and annual reports	62,652	—	314,456	377,108
Travel	243,609	415	102,214	346,238
Consultants	273,550	—	42,157	315,707
Conferences and meetings	155,613	126	155,610	311,349
Trustees' honoraria and expenses	226,180	19,008	—	245,188
Office equipment, supplies, and service	140,880	7,221	40,924	189,025
Postage, telephone, and messenger services	138,763	7,112	40,309	186,184
Computer equipment and services	112,625	5,773	32,716	151,114
Legal and accounting services	82,208	9,866	—	92,074
Insurance	51,895	—	—	51,895
Copying and duplicating	29,076	1,491	8,446	39,013
Books and periodicals	28,082	1,439	8,157	37,678
Miscellaneous	12,383	635	3,597	16,615
Membership fees and association dues	11,974	602	3,179	15,755
Reversal of provision for losses and write-offs of program-related investments	(49,317)	—	—	(49,317)
Total	$7,475,626	$3,053,473	$2,302,177	$12,831,276*

**Total expenses in 1990 were $12,155,835 which included $2,777,906 of investment expenses and $2,187,188 of direct charitable activities expenses.*

Under the provisions of the Tax Reform Act of 1969, Carnegie Corporation and other private foundations are subject to a federal excise tax of 2 percent on income and realized capital gains. However, under the Tax Reform Act of 1984, the rate is reduced to 1 percent if the foundation maintains its average expense rate of the previous five years and, in addition, spends the tax savings. The Corporation qualified for the reduced rate in fiscal year 1991. The tax savings are estimated to be $1.0 million. In accordance with the provisions of the Tax Reform Act of 1984, the Corporation has paid estimated taxes. Refundable taxes, representing the excess of estimated taxes over the taxes due, are carried as an asset. The balance sheet on page 136 shows a deferred tax liability of $2,005,829, representing the potential tax (at 2 percent) on gains as yet unrealized.

Ten-year financial summary

The table below sets forth the growth of investment assets, income (including interest, dividends, income from partnerships, and net realized gains, less investment expenses), appropriations, and other expenses over the ten fiscal years ended September 30, 1991. The significant rise in the market value of investment assets over the past ten fiscal years has provided the basis for substantial increases in appropriations during this period.

Ten-year financial summary (in thousands)

Fiscal year ended September 30	Market value of investments at year end	Income	Appropriations for grants and projects — net	Other expenses*
1991	$967,570	$ 94,556	$44,652	$10,738
1990	829,122	86,558	44,122	10,391
1989	891,033	106,082	39,306	8,842
1988	800,417	76,814	38,737	6,909
1987	806,296	160,647	39,432	6,798
1986	713,489	130,689	28,686	6,093
1985	564,385	59,581	26,134	5,582
1984	503,943	75,592	19,535	5,123
1983	515,709	100,134	13,231	5,381
1982	380,699	40,905	14,342	3,967

**Includes direct charitable activities, depreciation and amortization, and federal and state taxes; excludes investment expenses.*

Audit by independent accountants

The bylaws provide that the Corporation's accounts are to be audited each year by an independent public accountant. Accordingly, the firm of KPMG Peat Marwick audited the Corporation's financial statements for the fiscal year ended September 30, 1991. The Corporation's financial statements and related schedules, together with the independent auditors' report, appear on the following pages.

Independent auditors' report

The Board of Trustees
Carnegie Corporation of New York:

We have audited the accompanying balance sheets of Carnegie Corporation of New York as of September 30, 1991 and 1990, and the related statements of changes in expendable fund balance for the years then ended. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Carnegie Corporation of New York as of September 30, 1991 and 1990, and the changes in its expendable fund balance for the years then ended in conformity with generally accepted accounting principles.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in the schedule on pages 141 to 181 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the 1991 basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG Peat Marwick

New York, New York
December 13, 1991

Balance sheets

September 30, 1991 and 1990

	1991	1990
Assets		
Investments — note 2	$967,570,298	$829,121,584
Cash	224,066	568,104
Accrued investment income	8,814,841	8,688,836
Due from brokers, net	—	2,083,091
Refundable taxes, net	155,236	238,205
Accounts receivable and prepaid expenses	256,276	238,942
Program-related investments — note 3	262,286	311,603
Fixed assets — note 4	3,731,469	4,018,436
Total assets	$981,014,472	$845,268,801
Liabilities and fund balances		
Liabilities		
Unpaid appropriations	$ 23,911,464	$ 21,515,265
Accounts payable and other liabilities	2,426,846	1,237,071
Due to brokers, net	1,111,543	—
Deferred taxes payable — note 5	2,005,829	203,230
Total liabilities	$ 29,455,682	$ 22,955,566
Fund balances		
Expendable	$816,221,922	$686,976,367
Nonexpendable (no change)	135,336,868	135,336,868
Total fund balances	$951,558,790	$822,313,235
Total liabilities and fund balances	$981,014,472	$845,268,801

See accompanying notes to financial statements.

Statements of changes in expendable fund balance

for the years ended September 30, 1991 and 1990

	1991	1990
Investment income		
Interest, dividends, and income from partnerships	$ 49,521,040	$ 65,118,668
Net realized gain on investment transactions	48,069,255	24,186,987
Other	19,439	30,164
Total realized investment income	97,609,734	89,335,819
Less investment expenses	3,053,473	2,777,906
Net realized investment income	94,556,261	86,557,913
Expenses		
Grant appropriations, net	40,643,952	41,351,254
Appropriations for projects administered by officers, net	4,008,049	2,770,386
General administration, program management, and direct charitable activities	9,777,803	9,377,929
Provision for taxes — note 5	959,743	1,013,484
Total expenses	55,389,547	54,513,053
Excess of net realized investment income over expenses	$ 39,166,714	$ 32,044,860
Increase (decrease) in unrealized appreciation of investments, net of deferred federal excise tax (credit) of $1,838,344 in 1991 and $(1,650,051) in 1990 — note 5	90,078,841	(80,852,500)
Fund balance, beginning of year	686,976,367	735,784,007
Fund balance, end of year	$816,221,922	$686,976,367

See accompanying notes to financial statements.

(1) Summary of significant accounting policies:

The accompanying financial statements have been prepared on the accrual basis of accounting.

Fixed assets are stated at cost. Depreciation is calculated on a straight-line basis over the estimated lives of the related assets. Leasehold improvements are amortized over the remaining life of the lease.

The resources of the Corporation consist of nonexpendable and expendable funds. Nonexpendable resources represent the original sums received from Andrew Carnegie who, by the terms of the conveying instrument, stipulated that the principal may never be expended.

(2) Investments:

Equities and fixed income securities are reported on the basis of quoted market value. Limited partnership interests in real estate are reported at appraised value, adjusted for the Corporation's share of the limited partnership income or loss. Venture capital and other limited partnership investments are reported at fair value as determined by the general partner of each limited partnership. Other investments are carried at cost, or fair value if available. Investments are composed of the following at September 30, 1991 and 1990:

	September 30, 1991		September 30, 1990	
	Cost	Market value	Cost	Market value
Equities				
Common stocks	$298,998,272	$350,239,974	$273,836,024	$277,874,613
Convertibles	5,253,276	5,807,255	9,228,445	7,186,956
Fixed Income				
Short term	22,835,324	21,847,158	25,488,961	25,485,180
Long term	351,625,294	371,841,145	338,120,607	335,765,217
Limited partnership interests				
Real estate	12,854,555	15,702,719	12,622,344	14,935,048
Venture capital	7,952,356	15,532,845	9,728,499	12,065,922
Other	142,322,434	168,969,803	131,544,512	137,163,500
Other investments	23,692,228	17,629,399	18,432,818	18,645,148
Total	$865,533,739	$967,570,298	$819,002,210	$829,121,584

(3) Program-related investments:

The Corporation has made investments in loans to nonprofit organizations to accomplish one or more of the purposes for which the Corporation is organized and operated.

Due to the risk involved in these investments, the Corporation estimates the collectibility of these amounts to be approximately 50 percent of the remaining loan amount and, accordingly, such investments are presented on the accompanying balance sheets net of allowance for possible losses of $262,286 in 1991, and $311,603 in 1990.

(4) Fixed assets:

Fixed assets are composed of the following at September 30, 1991 and 1990:

	1991	1990
Leasehold improvements	$3,744,995	$3,697,267
Furniture and equipment	1,327,102	1,123,427
	5,072,097	4,820,694
Less: Accumulated amortization and depreciation	(1,340,628)	(802,258)
Total	$3,731,469	$4,018,436

(5) Taxes:

The Corporation is liable for federal excise taxes of 2 percent of its net investment income, as defined, which includes realized capital gains for the year. However, this tax is reduced to 1 percent if certain conditions are met. Since the Corporation met the requirements for the reduced tax for the years ended September 30, 1991 and 1990, current taxes are estimated at 1 percent of net investment income, as defined.

Deferred taxes represent 2 percent of unrealized appreciation on investments for the years ended September 30, 1991 and 1990, as qualification for the 1 percent tax is not determinable until the fiscal year in which gains are realized.

The Corporation is also subject to unrelated business income tax, which is calculated based on applicable corporate tax rates.

(6) Retirement plans:

The Corporation purchases annuities for qualifying employees under the terms of a noncontributory, defined contribution retirement plan with Teachers Insurance and Annuity Association and College Retirement Equities Fund. Retirement plan expenses for the years ended September 30, 1991 and 1990, were $612,178 and $580,611, respectively.

In addition, the Corporation has established a noncontributory defined benefit annuity plan to supplement the basic plan described above. This plan is also administered by Teachers Insurance and Annuity Association and College Retirement Equities Fund. Total contributions, based on actuarial calculations, to this plan in the fiscal year ended September 30, 1991, were $141,382; $89,879 for the plan year beginning January 1, 1990, and $51,503 towards the plan year beginning January 1, 1991. Total contributions to this plan in the fiscal year ended September 30, 1990, were $91,900.

(7) Lease:

The Corporation occupies office space at its present location at 437 Madison Avenue under a sublease agreement expiring December 31, 1997.

The following is a schedule of the minimum future lease payments at September 30, 1991:

1992	$1,318,815
1993	1,335,315
1994	1,347,690
1995	1,351,815
1996	1,376,565
1997-1998	1,767,113
	$8,497,313

Rental expense for 1991 and 1990 was $1,485,232 and $1,409,131, respectively.

Schedule of appropriations and payments

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Abubakar Tafawa Balewa University Bauchi, Nigeria				
Workshop on science and technology information systems	21,000			21,000
ACCESS: A Security Information Service 1730 M Street, N.W. Washington, D.C. 20036				
Security information service — $250,000 (1990)		125,000	125,000	
ACCESS: Networking in the Public Interest 50 Beacon Street Boston, Massachusetts 02108				
Database of minority candidates for public service employment	25,000		25,000	
Action for Children's Television 20 University Road Cambridge, Massachusetts 02138				
Educational materials about the Children's Television Act of 1990	10,000		10,000	
Ad Hoc Soviet Research Group for a U.S.-Soviet Project on the Educational Uses of Computers in the Early Elementary Grades Academy of Sciences Moscow, Russia				
Expenses of the project — $25,000 (1988)		1,706	1,297	409
Africa Leadership Foundation 310 East 46th Street New York, New York 10017				
Africa Leadership Forum	200,000		200,000	
African Academy of Sciences P.O. Box 14798 Nairobi, Kenya				
Consultations on the feasibility of a foundation for science and technology in Africa	25,000		25,000	
Planning a research grants program in female education in Africa	20,000		20,000	
African-American Institute 833 United Nations Plaza New York, New York 10017				
Research and writing by Achola Palo Okeyo on technology generation and use — $122,500 (1990)		42,000	42,000	
Program on policy issues in U.S.-African relations	250,000		125,000	125,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
African Council on Communication Education P.O. Box 47495 Nairobi, Kenya				
Biennial conference — $25,000 (1990)		25,000	25,000	
	34,500		34,500	
African Medical and Research Foundation P.O. Box 30125, Wilson Airport Nairobi, Kenya				
Assessment of a program on nonformal health education in eastern and southern Africa	25,000		25,000	
African Regional Centre for Technology Avenue Cheikh Anta Diop Dakar, Senegal				
Guide to directories on science and technology in Africa	25,000		25,000	
Africare 440 R Street, N.W. Washington, D.C. 20001				
Maternal health and child survival program in Imo State, Nigeria	193,000		120,000	73,000
Ahmadu Bello University Zaria, Nigeria				
Research on maternal mortality in the Zaria local government area — $160,000 (1990)		160,000		160,000
Alliance To Save Energy 1725 K Street, N.W. Washington, D.C. 20006				
Public policy paper on economic incentives for environmental protection	97,600		97,600	
Second printing of a public policy paper on economic incentives for environmental protection	3,000		3,000	
American Academy of Arts and Sciences Norton's Woods, 136 Irving Street Cambridge, Massachusetts 02138				
Planning a study of the future of American television	25,000			25,000
American Association for Higher Education One Dupont Circle, N.W. Washington, D.C. 20036				
College and university collaboration with schools	350,000		86,500	263,500

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
American Association for the Advancement of Science 1333 H Street, N.W. Washington, D.C. 20005				
Program on Science, Arms Control, and National Security — $350,000 (1989)		175,000	175,000	
Program to strengthen the scientific and technological infrastructure in sub-Saharan Africa — $650,000 (1990)		400,000	400,000	
Project to improve science and mathematics education for minority, female, and disabled youth — $850,000 (1990)		429,000	412,000	17,000
Preparation and dissemination of a guide to Congress for scientists and engineers	15,000		15,000	
Symposium on science in Africa	307,000		207,000	100,000
American Civil Liberties Union Foundation 132 West 43rd Street New York, New York 10036				
Voting Rights Project — $300,000 (1990)		200,000	100,000	100,000
Project to reduce the domestic effects of the Cold War security system	200,000		100,000	100,000
American College of Nurse-Midwives 1522 K Street, N.W. Washington, D.C. 20005				
Continuing education courses for nurse-midwives in Ghana — $250,000 (1990)		125,000	125,000	
Participation by Joseph Taylor in the IVth International Congress for Maternal and Neonatal Health and the XIIIth World Congress of Obstetrics and Gynecology	2,640		2,640	
American College of Obstetricians and Gynecologists 409 Twelfth Street, S.W. Washington, D.C. 20024				
Collaborative program to improve maternal health in Nigeria	30,000		30,000	
American Committee on U.S.-Soviet Relations 109 Eleventh Street, S.E. Washington, D.C. 20003				
Assessment of developments in the Soviet Union and in the U.S.-Soviet relationship — $300,000 (1990)		225,000	225,000	
American Enterprise Institute for Public Policy Research 1150 Seventeenth Street, N.W. Washington, D.C. 20036				
Seminar series on integrated programs for at-risk children and families	100,000		50,000	50,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
American Forum 712 G Street, S.E. Washington, D.C. 20003				
Production and dissemination in the South of media packets on public policy issues affecting children and families	120,000		30,000	90,000
American Red Cross Seventeenth and D Streets, N.W. Washington, D.C. 20006				
Technical assistance for Red Cross societies in sub-Saharan Africa and the Caribbean — $400,000 (1989)		77,500	77,500	
Project to improve blood transfusion services in Uganda — $25,000 (1990)		25,000	25,000	
American Society of Zoologists 104 Sirius Circle Thousand Oaks, California 91360				
Symposium series on education in biology — $162,330 (1988)		57,000	57,000	
Arizona State University Tempe, Arizona 85287				
Interinstitutional program to increase the numbers of Hispanic students in graduate schools — $382,000 (1990)		206,000	206,000	
Arms Control Association 11 Dupont Circle, N.W. Washington, D.C. 20036				
Program on arms control and national security for the Washington press corps — $200,000 (1990)		100,000	100,000	
Aspen Institute P.O. Box 222 Queenstown, Maryland 21658				
Aspen Strategy Group — $225,000 (1990)		168,750	112,500	56,250
Meetings on U.S. relations with southern Africa for American lawmakers	300,000		300,000	
Meetings on U.S.-Soviet relations for American lawmakers	453,500		453,500	
Association of Commonwealth Universities John Foster House, 36 Gordon Square London WCIH OPF, United Kingdom				
Fellowships for distinguished academics at Commonwealth universities — $150,000 (1990)		150,000	50,000	100,000
Association of Junior Leagues International 660 First Avenue New York, New York 10016				
Replication of its pregnancy prevention program in middle schools	225,000		37,500	187,500

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Association of Science-Technology Centers 1025 Vermont Avenue, N.W. Washington, D.C. 20005				
Project to strengthen the capacity of science museums to support school science programs	320,600		54,500	266,100
Association of State Supervisors of Mathematics P.O. Box 7841 Madison, Wisconsin 53707				
Planning the implementation of reforms in school mathematics curricula — $100,000 (1989)		25,000	25,000	
Atlantic Council of the United States 1616 H Street, N.W. Washington, D.C. 20006				
U.S.-Soviet project on the future of U.S.-Soviet relations in a pluralistic world — $87,000 (1990)		43,500	43,500	
Avance-San Antonio 301 South Frio San Antonio, Texas 78207				
Evaluation of the Parent Education Program — $142,000 (1990)		71,000	71,000	
Bank Street College of Education 610 West 112th Street New York, New York 10025				
Study of comprehensive services for homeless families and children	50,000		50,000	
Benin, University of, Teaching Hospital P.M.B. 1111 Benin City, Bendel State, Nigeria				
Research on maternal mortality in a rural Nigerian community	165,000			165,000
Black Lawyers' Association Legal Education Centre P.O. Box 5217 Johannesburg 2000, South Africa				
Publications and educational programs for black lawyers in South Africa — $75,000 (1989)		25,000	25,000	
Botswana, University of Gaborone, Botswana				
Research on appropriate technology for irrigation in Botswana	16,300		16,300	
Breznitz, Shlomo New School for Social Research 65 Fifth Avenue New York, New York 10003				
Writing on education for a changing world — $25,000 (1985)		500		500

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Bristol, University of Bristol BS8 1TH, United Kingdom				
Study by Maureen Samms-Vaughan of determinants of low-birthweight and growth retardation in Jamaica — $80,000 (1990)		40,000	40,000	
Data analysis of a study of pregnancy-induced hypertension in selected countries of Africa and Asia	23,500		23,500	
Brookings Institution 1775 Massachusetts Avenue, N.W. Washington, D.C. 20036				
Research and writing on international relations by Harold Saunders — $25,000 (1990)		25,000	25,000	
Research on conflict resolution in Africa — $450,000 (1990)		225,000	225,000	
Research on the operational aspects of a cooperative security system	1,200,000		400,000	800,000
Task Force on the Prevention of Proliferation	331,520		106,520	225,000
California State Department of Education 721 Capitol Mall Sacramento, California 94244				
Regional networks of middle grade schools to introduce educational reform — $425,000 (1990)		234,000	234,000	
California State University, Dominguez Hills Carson, California 90747				
Model program to increase the numbers of minority teachers — $200,000 (1990)		101,500	101,500	
California, University of, Berkeley Berkeley, California 94720				
Berkeley-Stanford Program on Soviet International Behavior — $750,000 (1988)		143,443	143,443	
Berkeley-Stanford Program in Soviet Studies	797,000		96,000	701,000
Study of differences in school performance, educational strategies, and cultural models among minority groups	25,000		25,000	
California, University of, Irvine Irvine, California 92717				
Model program to enhance minority participation in science and technology — $372,200 (1990)		243,800	134,600	109,200
Education symposium honoring Clark Kerr	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
California, University of, Los Angeles Los Angeles, California 90024				
Study of the implementation of educational reforms under Carnegie Corporation's Middle Grade School State Policy Initiative	355,000		77,000	278,000
California, University of, San Diego La Jolla, California 92093				
Research and education on cooperative security in the Middle East	25,000		25,000	
Technical assistance and research on the use of communication through computers in U.S.-Soviet joint projects	386,200		113,900	272,300
U.S.-Soviet project on the educational uses of computers in the early elementary grades	340,000		340,000	
California, University of, San Francisco San Francisco, California 94143				
Evaluation of comprehensive school-based health centers in California — $250,000 (1989)		124,000	83,500	40,500
Planning an international health social science organization	25,000		25,000	
Cape Town, Archdiocese of 16 Bishopscourt, Claremont 7700 South Africa				
News service	25,000		25,000	
Cape Town, University of Rondebosch 7700, South Africa				
Research on adolescence in South Africa	49,000		49,000	
Carnegie Dunfermline Trust Abbey Park House, Dunfermline Fife KY12 7PB, United Kingdom				
Maintenance of the Andrew Carnegie Birthplace Memorial — $25,000 (1987)		5,000	5,000	
Carnegie Endowment for International Peace 2400 N Street, N.W. Washington, D.C. 20037				
Preparation, publication, and dissemination of annual reports on nuclear proliferation — $300,000 (1990)		225,000	150,000	75,000
Carnegie Hall Corporation 881 Seventh Avenue New York, New York 10019				
International festival of youth orchestras	100,000		100,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Carnegie Institution of Washington 1530 P Street, N.W. Washington, D.C. 20005				
Saturday science program for disadvantaged elementary school students in Washington, D.C. — $90,000 (1990)		30,000	15,000	15,000
Carnegie Mellon University Pittsburgh, Pennsylvania 15213				
Model support program for women and underrepresented minorities in science and engineering — $25,000 (1990)		12,500		12,500
Study of chemical arms control and verification — $345,000 (1990)		261,000	172,500	88,500
Case Western Reserve University 2040 Adelbert Road Cleveland, Ohio 44106				
Center for Adolescent Health	25,000		25,000	
Center for Education on Nuclear War 1755 Massachusetts Avenue, N.W. Washington, D.C. 20036				
Study group on U.S. policy on the use of nuclear weapons	20,000		20,000	
Center for Foreign Policy Development Brown University Providence, Rhode Island 02912				
Joint U.S.-Soviet project to develop a videoconferencing facility for academic exchanges — $25,000 (1990)		25,000	25,000	
	200,000		200,000	
Project on U.S.-Soviet-Cuban relations	25,000		25,000	
Center for Policy Alternatives 1875 Connecticut Avenue, N.W. Washington, D.C. 20009				
Project on state election law reform to increase voter participation — $250,000 (1990)		125,000	125,000	
Center for Population Options 1025 Vermont Avenue, N.W. Washington, D.C. 20005				
Services to school-based health clinics — $200,000 (1990)		100,000	100,000	
Projects concerned with the electronic media and adolescent sexuality	200,000		100,000	100,000
Center for Strategic and International Studies 1800 K Street, N.W. Washington, D.C. 20006				
Study of chemical arms control	115,500		115,500	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Center on Addiction and Substance Abuse c/o Dewey Ballantine, 1301 Avenue of the Americas New York, New York 10019				
Planning an institute on addiction and substance abuse	25,000		25,000	
Center on Budget and Policy Priorities 777 North Capitol Street, N.E. Washington, D.C. 20002				
Research and education on the federal defense budget	225,000		75,000	150,000
Centre for Our Common Future Palais Wilson, 52 rue des Paquis 1201 Geneva, Switzerland				
Reconvening of the World Commission on Environment and Development in spring 1992	50,000			50,000
Support	250,000		130,000	120,000
Chicago, University of Chicago, Illinois 60637				
Integrated secondary school mathematics curriculum — $93,750 (1990)		33,750	33,750	
Research and policy analysis on child and adolescent violence — $212,000 (1990)		106,000	106,000	
Study of caregiving for young children in inner-city Chicago	400,000		80,000	320,000
Child Care Employee Project 6536 Telegraph Avenue Oakland, California 94609				
Resource guide for states about improving the quality of the child care work force	25,000		25,000	
Children of Alcoholics Foundation 200 Park Avenue New York, New York 10166				
Conference on protecting vulnerable children — $85,800 (1990)		20,300	20,300	
Children's Defense Fund 122 C Street, N.W. Washington, D.C. 20001				
Media campaign to help prevent adolescent pregnancy — $200,000 (1989)		50,000	50,000	
Divisions of family support; health; and education, youth development, and adolescent pregnancy prevention	700,000		250,000	450,000
Meetings on state implementation of federal child care legislation	18,000		18,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Children's Television Workshop One Lincoln Plaza New York, New York 10023				
Production of a television series about mathematics for children	300,000		150,000	150,000
Citizens Network for Foreign Affairs 1616 H Street, N.W. Washington, D.C. 20006				
Series of national public policy roundtables	50,000		50,000	
Claremont Graduate School Claremont, California 91711				
Study of labor relations reforms in public education — $99,100 (1990)		49,100	49,100	
Cleveland Education Fund 1456 Hanna Building Cleveland, Ohio 44115				
New science curriculum in the Cleveland public schools — $150,000 (1990)		92,000	50,000	42,000
Columbia University New York, New York 10027				
Research and training on maternal health in sub-Saharan Africa — $998,000 (1990)		498,000	498,000	
Conference to prepare a book of essays on Latin America and the Caribbean	25,000		25,000	
National Center for Children in Poverty	1,000,000		500,000	500,000
Program on post-Cold War Europe	506,100		165,440	340,660
Research and writing by Ambassadors Jack Matlock and Anatoly Dobrynin	190,000		116,655	73,345
Study of innovative European policies and programs for children under age three	200,000		75,000	125,000
Columbia University, Teachers College New York, New York 10027				
Research on the history of American education — $197,736 (1973)		76,736		76,736
Committee for Economic Development 477 Madison Avenue New York, New York 10022				
Program in education and child development — $300,000 (1989)		150,000	100,000	50,000
Commonwealth Caribbean Medical Research Council 3 The Garth, Cobham Surrey KT11 2DZ, United Kingdom				
Support	250,000		100,000	150,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Conflict Management Group 50 Church Street Cambridge, Massachusetts 02138				
Planning a project to assist in the development of a conflict resolution system for Europe	25,000		25,000	
Project to assist in the development of a conflict resolution system for Europe	150,000		150,000	
Congress of National Black Churches 1225 Eye Street, N.W. Washington, D.C. 20005				
Church-based educational programs for children and families — $750,000 (1989)		275,000	200,000	75,000
Congressional Institute for the Future 218 D Street, S.E. Washington, D.C. 20510				
Dissemination of reports of the Office of Technology Assessment — $150,000 (1989)		30,000	30,000	
Council for Court Excellence 1025 Vermont Avenue, N.W. Washington, D.C. 20005				
Dissemination and implementation of the recommendations of the Federal Courts Study Committee — $25,000 (1990)		25,000	25,000	
Council for Excellence in Government 1775 Pennsylvania Avenue, N.W. Washington, D.C. 20006				
Book on the most important scientific and technical jobs in the U.S. government — $75,000 (1990)		25,000	25,000	
Council of Chief State School Officers 379 Hall of the States One Massachusetts Avenue, N.W. Washington, D.C. 20001				
Interstate New Teacher Assessment and Support Consortium	300,200		77,230	222,970
State resource guide on school-based community service programs	25,000		25,000	
Council of Graduate Schools in the United States One Dupont Circle, N.W. Washington, D.C. 20036				
Study of the underrepresentation of minorities in graduate schools — $25,000 (1990)		25,000	25,000	
Council of State Governments P.O. Box 11910, Iron Works Pike Lexington, Kentucky 40578				
Center on adolescent pregnancy prevention for the southern region — $329,000 (1990)		246,750	164,500	82,250

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Council on Economic Priorities 30 Irving Place New York, New York 10003				
Professional and public education on chemical and biological weapons proliferation	**25,000**		25,000	
Council on Foreign Relations 58 East 68th Street New York, New York 10021				
Study of U.S.-Soviet relations in the next decade — $208,000 (1989)		69,000	69,000	
Council on Foundations 1828 L Street, N.W. Washington, D.C. 20036				
Activities of the Southern Africa Grantmakers' Affinity Group	**20,000**		20,000	
1991 membership support	**24,700**		24,700	
Dar es Salaam, University of Dar es Salaam, Tanzania				
Eastern and Southern Africa Technology Policy Research Network at the Institute of Development Studies — $171,200 (1989)		57,000	57,000	
Interdisciplinary program in social science and medicine	**25,000**			25,000
Research on the impact of international technical assistance on agriculture in Tanzania	**13,000**			13,000
Research to improve food self-sufficiency in Tanzania	**15,000**		15,000	
Defense for Children International - USA 21 South 13th Street Philadelphia, Pennsylvania 19107				
Dissemination of The Effects of Maternal Mortality on Children in Africa	**23,000**		23,000	
Development Resources Trust Johannesburg 2000, South Africa				
Independent commission on an enabling environment for nongovernmental organizations in South Africa	**25,000**		25,000	
Dryfoos, Joy 20 Circle Drive Hastings-on-Hudson, New York 10706				
Research and writing on adolescents at risk — $100,000 (1990)		35,000	35,000	
Duke University Durham, North Carolina 27706				
Research and publication on Soviet domestic politics — $606,000 (1989)		303,000	202,000	101,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Collaborative program to improve maternal and child health in Tanzania — $250,000 (1990)		66,000	66,000	
South African Documentary Photography Fellowship Program at the Center for Documentary Studies — $53,000 (1990)		26,500	26,500	
Editorial Projects in Education 4301 Connecticut Avenue, N.W. Washington, D.C. 20008				
Teacher Magazine	250,000		250,000	
Education Commission of the States 707 17th Street Denver, Colorado 80202				
National program to foster mentoring relationships between college students and youth at risk of school failure — $374,000 (1989)		89,500	89,500	
	390,000		88,000	302,000
Project to assist states with policy and administrative issues in educational reform — $400,000 (1990)		200,000	200,000	
Educational Foundation for Nuclear Science 6042 South Kimbark Avenue Chicago, Illinois 60637				
Implementation of a marketing strategy for the Bulletin of the Atomic Scientists *— $200,000 (1989)*		50,000	50,000	
Educational Opportunities Trust Hunts Corner, 20 New Street South Johannesburg 2001, South Africa				
Support of a nondegree fellowship program of study in the United States for black South Africans	100,000		50,000	50,000
Emory University Atlanta, Georgia 30322				
International negotiation network at the Carter Center — $250,000 (1990)		125,000	125,000	
Environmental Defense Fund 257 Park Avenue South New York, New York 10010				
Research on the effects of environmentally introduced toxins on pregnant adolescents — $240,000 (1990)		240,000	80,000	160,000
Erikson Institute 25 West Chicago Avenue Chicago, Illinois 60610				
Training, certification, and assistance program for community child safety specialists — $377,000 (1989)		94,500	94,500	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Families and Work Institute 330 Seventh Avenue New York, New York 10001				
Study of quality in family child care	250,000		70,000	180,000
Family Care International 588 Broadway New York, New York 10012				
Technical assistance to safe motherhood initiatives in sub-Saharan Africa and advocacy in the Caribbean	146,000		73,000	73,000
Far West Laboratory for Educational Research and Development 730 Harrison Street San Francisco, California 94107				
Completion of a training program for infant and toddler caregivers	175,000		87,500	87,500
Federation of American Scientists Fund 307 Massachusetts Avenue, N.E. Washington, D.C. 20002				
Research and education on antiballistic missile systems	100,000		50,000	50,000
U.S.-Soviet joint research on the technical basis for arms control and reductions	117,500		117,500	
Financial Services Volunteer Corps 425 Lexington Avenue New York, New York 10017				
Assistance and training in the development of free-market financial institutions in the Soviet Union and Eastern Europe	100,000		50,000	50,000
Florida State University Tallahassee, Florida 32306				
Public policy project to promote the well-being of children — $255,000 (1990)		70,000	70,000[a]	
Florida, University of Gainesville, Florida 32611				
Planning a science curriculum on CD-ROM for middle and junior high schools	25,000		25,000	
Formative Evaluation Research Associates 505 East Huron Ann Arbor, Michigan 48104				
Research and writing on militant white racism by Raphael S. Ezekiel	25,000		25,000	
Foundation Center 79 Fifth Avenue New York, New York 10003				
Support	150,000		75,000	75,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Foundation Project Station 3239 Half Moon Bay, California 94019				
Support — $20,000 (1990)		20,000	20,000	
	8,500		8,500	
French-American Foundation 41 East 72nd Street New York, New York 10021				
Project to inform U.S. policymakers and practitioners about the French child care system and its relevance to the United States	25,000		25,000	
Fund for Peace 345 East 46th Street New York, New York 10017				
Support of the National Security Archive	300,000		300,000	
Fundación Mexicana para la Salud Av. Contreras No. 516, San Jerónimo Lidice 10200 México D.F., México				
Planning and development unit	125,000		41,000	84,000
Planning and development unit to strengthen institutional philanthropy in Mexico	25,000		25,000	
Research in maternal and child health and strengthening of health resources in Mexico	600,000		240,000	360,000
Funders' Committee for Voter Registration and Education c/o New World Foundation, 100 East 85th Street New York, New York 10028				
Support	6,000		6,000	
George Washington University Washington, D.C. 20052				
Research and writing on applied political psychology by Jerrold Post — $334,790 (1990)		278,990	103,480	175,510
Series of policy seminars on at-risk children and youth	150,000		75,000	75,000
Georgetown University Washington, D.C. 20057				
Discussions on science funding with representatives of the Russian Science Foundation	25,000		25,000	
Ghana, University of Legon, Accra, Ghana				
Project for postgraduate training in obstetrics and gynecology in Ghana — $482,200 (1989)		157,400	157,400	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Ghana, University of, Medical School Legon, Accra, Ghana				
Research on maternal mortality	150,000		150,000	
Girls Incorporated 30 East 33rd Street New York, New York 10016				
Development and evaluation of four models of pregnancy prevention among adolescents — $150,000 (1990)		75,000	75,000	
Gliksman, Alex 3800 North Fairfax Drive Arlington, Virginia 22203				
Research and writing on emerging conventional arms technology — $25,000 (1988)		2,150	2,150	
Global Outlook Education Institute 405 Lytton Avenue Palo Alto, California 94301				
U.S.-Soviet study of legislative oversight of defense and security policy	200,000		200,000	
Greater Washington Educational Telecommunications Association P.O. Box 2626 Washington, D.C. 20013				
Television series on the global economic role of the United States	200,000			200,000
HACER Hispanic American Career Educational Resources 545 Eighth Avenue New York, New York 10018				
Completion of curriculum materials for mentoring programs by the Hispanic Women's Center	10,000		10,000	
Harvard University Cambridge, Massachusetts 02138				
Takemi Program in International Health of the Harvard School of Public Health — $250,000 (1988)		91,000	91,000	
	345,000		115,000	230,000
U.S.-Soviet study of confidence- and security-building measures in Europe — $227,000 (1989)		95,000	95,000	
Collaborative training program with African institutions in health and behavioral research — $490,000 (1990)		247,000	247,000	
Project in the Soviet Union on negotiation and dispute resolution — $213,500 (1990)		106,750	106,750	
Research and education on the avoidance of nuclear war — $600,000 (1990)		300,000	300,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Research and technical assistance by the Project on Avoiding Nuclear War on strengthening democratic institutions in Eastern Europe and the Soviet Union — $735,000 (1990)		367,500		367,500
Articles on the education of young adolescents	25,000		25,000	
Collaborative training program with African institutions in health and behavioral research	11,500		11,500	
Dissemination of a paper on reform of the human service system affecting children in poverty	10,000		10,000	
Executive program for general officers of the Soviet armed forces	163,000		163,000	
International research by Dorothy S. Zinberg on linkages between research universities and industry	25,000		25,000	
Manual for practitioners on family support programs in the schools	150,000		102,000	48,000
Project to strengthen democratic leadership in Eastern and Central Europe	225,000		75,000	150,000
Research and education on chemical weapons proliferation	225,000		75,000	150,000
Research and writing by Arnold S. Relman on health-care policy	25,000		25,000	
Research and writing by Karl W. Deutsch	25,000		15,000	10,000
Research on post-Cold War reconstruction and high-technology weapons in the new world order	500,000		125,000	375,000
South African participation in the Edward S. Mason Program in Public Policy and Management of the John F. Kennedy School of Government	18,350		18,350	
Symposium on public school finance reform	10,000		10,000	
Helsinki Watch 485 Fifth Avenue New York, New York 10017				
Expansion of activities with the Soviet Union	200,000		100,000	100,000
High/Scope Educational Research Foundation 600 North River Street Ypsilanti, Michigan 48198				
Data analysis by Olayemi Onibokun of an international study of preprimary education	25,000		25,000	
Dissemination of an international study of preprimary education	10,000		10,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Hofstra University Hempstead, New York 11550				
U.S.-Soviet study of labor-management relations	100,000		100,000	
Human SERVE Campaign 622 West 113th Street New York, New York 10025				
Support	25,000		25,000	
Ibadan, University of Ibadan, Nigeria				
Development of scientific databases and information systems	200,000		100,000	100,000
Planning the 1991 World Conference on Comparative Adult Education	25,000		25,000	
Symposium on molecular biology and human diseases	25,000		25,000	
Ilorin, University of Ilorin, Nigeria				
Research on maternal mortality in a rural Nigerian community — $150,000 (1990)		150,000	114,000	36,000
Independent Production Fund 45 West 45th Street New York, New York 10036				
Television and radio project targeted at African American and Hispanic voters	500,000			500,000
Independent Sector 1828 L Street, N.W. Washington, D.C. 20036				
Studies in leadership by John W. Gardner — $25,000 (1990)		25,000	25,000	
1991 membership support	7,400		7,400	
Study of the needs of the international nonprofit sector	25,000		25,000	
Institute for East-West Security Studies 360 Lexington Avenue New York, New York 10017				
U.S.-Soviet Relations Program — $300,000 (1985)		2,227	2,227	
Program on the future role of military power in Europe — $315,800 (1990)		239,500	157,250	82,250
Institute for Educational Leadership 1001 Connecticut Avenue, N.W. Washington, D.C. 20036				
Report on demographic changes and education	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Institute for Puerto Rican Policy 286 Fifth Avenue New York, New York 10001				
Project on redistricting for Puerto Rican and other Latino communities in the Northeast	25,000		25,000	
Institute for Research on Learning 2550 Hanover Street Palo Alto, California 94304				
Consortium for research on the teaching and learning of science and mathematics	200,000		100,000	100,000
Institute of International Education 809 United Nations Plaza New York, New York 10017				
Career development program for black South Africans at U.S. universities	80,000		80,000	
Consultation on southern African affairs by J. Wayne Fredericks	125,000		62,500	62,500
Information exchange on U.S. educational opportunities for black South Africans	65,000		65,000	
International Health Policy Program	375,000		162,000	213,000
Inter-American Dialogue 11 Dupont Circle, N.W. Washington, D.C. 20036				
Support — $200,000 (1989)		66,000	66,000	
	300,000		150,000	150,000
International Center of Photography 1130 Fifth Avenue New York, New York 10128				
Dissemination in the United States of the outcomes of the Second Carnegie Inquiry into Poverty and Development in Southern Africa	44,550		28,550	16,000
International Development Research Centre 250 Albert Street Ottawa, Ontario K1G 3H9, Canada				
Task Force on Health Research for Development	220,000		112,500	107,500
International Federation of Gynecology and Obstetrics Royal College of Obstetrics and Gynaecology, 27 Sussex Place London NW1 4RG, United Kingdom				
West African participation in a precongress workshop at the XIIIth World Congress of Obstetrics and Gynecology	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
International Foundation for the Survival and Development of Humanity 11 Dupont Circle, N.W. Washington, D.C. 20036				
Support — $500,000 (1989)		250,000		250,000
International Peace Academy 777 United Nations Plaza New York, New York 10017				
Discussions among U.S., Soviet, and Third World representatives on regional security — $150,000 (1989)		37,500	37,500	
International Rescue Committee 386 Park Avenue South New York, New York 10016				
Education of the public and policymakers about Kurdish refugees	25,000		25,000	
International Research and Exchanges Board 126 Alexander Street Princeton, New Jersey 08540				
Meetings and exchanges involving U.S. and Soviet scholars and policy experts — $750,000 (1990)		375,000	375,000	
Program of exchange of scholars between U.S. and Soviet security studies centers — $250,000 (1990)		250,000	250,000	
Connection of the scholarly community of the Soviet Union to the European Academic Research Network	110,200		60,200	50,000
Planning a project on ethnic conflict in Eastern Europe	300,000		150,000	150,000
International Women's Health Coalition 24 East 21st Street New York, New York 10010				
Program to improve the reproductive health of women in Nigeria	300,000		270,000	30,000
Reprinting and distributing of a special issue of the International Journal of Gynecology and Obstetrics *on the impact of unwanted pregnancy on the health of women in developing countries*	20,000		20,000	
Internews Network P.O. Box 4448 Arcata, California 95521				
Study of television news alternatives in the Soviet Union	15,000		15,000	
Jackson State University Jackson, Mississippi 39217				
Precollege program to improve student achievement in mathematics and science	310,000		155,000	155,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Jobs for America's Graduates 1729 King Street Alexandria, Virginia 22314				
National school-to-work transition program for at-risk youth — $300,000 (1989)		100,000	100,000	
Johns Hopkins University Baltimore, Maryland 21218				
Conference on the Soviet Union in Latin America	16,000		16,000	
Estimating the social and health impact of national economic changes on children and youth	25,000		25,000	
Planning for the aftermath of the Persian Gulf War	25,000		25,000	
Research and development of an effective instructional program for disadvantaged children	470,000		78,000	392,000
Study of democratization in the Islamic world	25,000			25,000
U.S.-Soviet research project on conflict resolution in Third World regions	100,000		100,000	
Joint Center for Political and Economic Studies 1301 Pennsylvania Avenue, N.W. Washington, D.C. 20004				
National leadership conference for African American elected and appointed officials	25,000			25,000
Project on black male youth	547,000		90,000	457,000
Kaiser, Henry J., Family Foundation 2400 Sandy Hill Menlo Park, California 94025				
Magazine on health and development in southern Africa — $13,000 (1990)		13,000	13,000	
Keller, George 2432 Pickwick Road Baltimore, Maryland 21207				
Research and writing on changes in higher education required by new conditions in American society — $25,000 (1988)		8,125		8,125
Lagos, University of Akoka, Lagos, Nigeria				
Dissemination of a book on science and technology education in sub-Saharan Africa	15,000		15,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Lawyers' Committee for Civil Rights Under Law 1400 Eye Street, N.W. Washington, D.C. 20005				
Voting Rights Project — $350,000 (1990)		100,000	100,000	
African and South African participation in international consultations on constitutional options for South Africa	25,000		25,000	
Lawyers Committee for Human Rights 330 Seventh Avenue New York, New York 10001				
Monitoring and analysis of Soviet legal reform — $250,000 (1989)		62,500	62,500	
	140,000		140,000	
Leadership Conference Education Fund 2027 Massachusetts Avenue, N.W. Washington, D.C. 20036				
Public education campaign on civil rights	25,000		25,000	
Los Angeles Educational Partnership 315 West Ninth Street Los Angeles, California 90015				
Model program to improve science education in the Los Angeles public schools — $150,000 (1990)		65,100	65,100	
Malawi, University of Zomba, Malawi				
Project on maternal and child nutrition in Malawi conducted by the Centre for Social Research — $253,500 (1989)		29,000	23,485	5,515
	47,000		47,000	
Marine Biological Laboratory Woods Hole, Massachusetts 02543				
Fellowship program for science writers and broadcasters	25,000		25,000	
Maryland Foundation, University of 3300 Metzerott Road Adelphi, Maryland 20783				
Project on women in international security	25,000		25,000	
	25,000			25,000
Maryland Student Service Alliance 200 West Baltimore Street Baltimore, Maryland 21201				
Preparation of a middle grade youth service curriculum	25,000		25,000	
Massachusetts Institute of Technology Cambridge, Massachusetts 02139				
Defense and Arms Control Studies Program — $1,100,000 (1988)		525,000	385,000	140,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Workshop on the relationship between university science and government	25,000		25,000	
Mathematical Association of America 1529 Eighteenth Street, N.W. Washington, D.C. 20036				
Intervention projects in mathematics for minority students in middle and high school	327,000		128,500	198,500
McKenzie Group Columbia Square, 555 Thirteenth Street, N.W. Washington, D.C. 20004				
Compiling and disseminating court rulings regarding desegregation plans — $25,000 (1990)		25,000	25,000	
Meharry Medical College Nashville, Tennessee 37208				
Support of a community-based pregnancy prevention program for adolescents — $500,000 (1990)		342,500	249,907	92,593
MELD 123 North 3rd Street Minneapolis, Minnesota 55401				
Development of a parent education and support program for young, low-income Hispanic parents in California	47,000		23,500	23,500
Melmed, Arthur S. 4727 30th Street, N.W. Washington, D.C. 20008				
Writing on improving education through the application of cognitive science and information technology — $16,530 (1986)		6,530		6,530
Mental Health Law Project 1101 Fifteenth Street, N.W. Washington, D.C. 20005				
Advocacy on behalf of preschool developmentally disabled children	250,000		125,000	125,000
Mexican American Legal Defense and Educational Fund 634 South Spring Street Los Angeles, California 90014				
Program of education litigation and advocacy — $750,000 (1990)		500,000	250,000	250,000
Michigan, University of Ann Arbor, Michigan 48109				
Coordination of external support for a project for postgraduate training in obstetrics and gynecology in Ghana — $395,844 (1989)		135,844	135,844	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Planning a vesicovaginal fistulae intervention project in West Africa	25,000 25,000		50,000	
Midwest/Northeast Voter Registration Education Project 431 South Dearborn Chicago, Illinois 60605				
Research and analysis on the political implications of Hispanic population growth based on the 1990 census	75,000		75,000	
Minority Health Professions Foundation 8401 Colesville Road Silver Spring, Maryland 20910				
Papers on the prevention of youth violence in minority communities	15,000		15,000	
Monterey Institute of International Studies 425 Van Buren Street Monterey, California 93940				
Research and education on the proliferation of weapons of mass destruction	200,000		100,000	100,000
Morgan State University Baltimore, Maryland 21239				
Precollege mathematics and science program for minority students in Maryland — $350,000 (1990)		233,340	116,660	116,680
NAACP Legal Defense and Educational Fund 99 Hudson Street New York, New York 10013				
Education litigation program — $555,000 (1990)		370,000	185,000	185,000
NAACP Special Contribution Fund 4805 Mount Hope Drive Baltimore, Maryland 21215				
Program of education litigation and advocacy — $450,000 (1990)		246,000	246,000	
Project to mobilize community involvement in redistricting	125,000		125,000	
Nairobi, University of Nairobi, Kenya				
Interdisciplinary program in social science and medicine	25,000		25,000	
NALEO Educational Fund 3409 Garnet Street Los Angeles, California 90023				
National U.S. citizenship project	300,000		160,000	140,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Academy of Sciences 2101 Constitution Avenue, N.W. Washington, D.C. 20418				
Committee on International Security and Arms Control — $600,000 (1989)		200,000	200,000	
National Forum on the Future of Children and Their Families — $650,000 (1989)		162,500	162,500	
	650,000		180,000	470,000
National summit on mathematics assessment — $197,000 (1990)		98,500	98,500	
Networking of science and technology information systems in sub-Saharan Africa — $200,000 (1990)		100,000	100,000	
Production and dissemination of a Spanish-language version of an elementary school mathematics kit for parents and children — $159,000 (1990)		59,000	59,000	
Attendance by state policymakers at a national summit on mathematics assessment	22,000		22,000	
Committee on International Conflict and Cooperation	250,000		125,000	125,000
National Academy of Social Insurance 505 Capitol Court, N.E. Washington, D.C. 20002				
Support — $105,000 (1990)		70,000	70,000	
National Association for Science, Technology and Society 117 Willard Building University Park, Pennsylvania 16802				
Support — $100,000 (1990)		40,000	40,000	
National Association for the Education of Young Children 1834 Connecticut Avenue, N.W. Washington, D.C. 20009				
National Institute for Early Childhood Professional Development	425,000		97,300	327,700
National Association of State Boards of Education 1012 Cameron Street Alexandria, Virginia 22314				
National project to measure progress toward preparing all children for school entry	170,000		170,000	
National Association of State Directors of Teacher Education and Certification c/o Superintendent of Public Instruction, Old Capitol Building Olympia, Washington 98504				
Revising standards of certification for middle grade teacher education	21,000			21,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Board for Professional Teaching Standards 300 River Place Detroit, Michigan 48207				
Support	1,000,000		1,000,000	
National Center for Clinical Infant Programs 2000 14th Street North Arlington, Virginia 22201				
Technical assistance conference for states on quality child care programs for infants and toddlers	100,000		60,000	40,000
National Center for Science Education 2107 Dwight Way Berkeley, California 94704				
Support — $25,000 (1990)		25,000	25,000	
National Charities Information Bureau 19 Union Square West New York, New York 10003				
Support — $15,000 (1989)		5,000	5,000	
National Coalition on Black Voter Participation 1430 K Street, N.W. Washington, D.C. 20005				
Public education in African American communities about redistricting	20,000		20,000	
National Committee for Responsive Philanthropy 2001 S Street, N.W. Washington, D.C. 20009				
Support	25,000		12,500	12,500
National Conference of State Legislatures 1560 Broadway Denver, Colorado 80202				
Information and technical assistance on early childhood education and child care policy for state legislatures — $300,000 (1990)		156,000	156,000	
National Council for Families and Television 3801 Barham Boulevard Los Angeles, California 90068				
Conference on "The American Parent"	25,000		25,000	
National Council for International Health 1701 K Street, N.W. Washington, D.C. 20006				
Program to enhance U.S. participation in international cooperation in health — $300,000 (1990)		150,000	150,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Council of La Raza 810 First Street, N.E. Washington, D.C. 20002				
Analysis of policies and programs affecting the education of Hispanic Americans — $225,000 (1989)		112,500	75,000	37,500
Evaluation of a project to demonstrate effective community-based education models for Hispanic students and adults	320,000		160,000	160,000
National 4-H Council 7100 Connecticut Avenue Chevy Chase, Maryland 20815				
Training, certification, and assistance program for community child safety specialists	425,000		131,000	294,000
National Governors' Association Center for Policy Research Hall of the States, 444 North Capitol Street Washington, D.C. 20001				
Assistance to states in implementing national goals for education in the 1990s	500,000		250,000	250,000
National Institute for Medical Research Edmond Crescent, P.M.B. 2013, Yaba Lagos, Nigeria				
Conference on health research priorities in Nigeria	25,000		25,000	
National League of Cities Institute 1301 Pennsylvania Avenue, N.W. Washington, D.C. 20004				
Project to assist cities on child and family issues — $400,000 (1990)		172,000	86,000	86,000
National Progressive Primary Health Care Network c/o Community Health Department, University of the Witwatersrand Parktown 2193, South Africa				
Network of institutions and individuals concerned with primary health care in South Africa	200,000			200,000
National Safety Council 444 North Michigan Chicago, Illinois 60611				
Research and writing by Philip Shabecoff on international environmental cooperation	25,000			25,000
National Urban League 500 East 62nd Street New York, New York 10021				
Center on African American adolescent male development — $400,000 (1990)		200,000	200,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Native American Rights Fund 1506 Broadway Boulder, Colorado 80302				
Study of Indian education issues	25,000		25,000	
Natural Resources Defense Council 40 West 20th Street New York, New York 10011				
Nuclear weapons verification and data center projects — $300,000 (1990)		150,000	150,000	
Nebraskans for Public Television 1800 North 33 Lincoln, Nebraska 68503				
Production and promotion of television science programs for primary school children — $200,000 (1990)		25,000	25,000	
New Mexico MESA University of New Mexico Albuquerque, New Mexico 87131				
Statewide mathematics and science achievement program for minority students	250,000		125,000	125,000
New School for Social Research 66 West 12th Street New York, New York 10011				
Project on global order in the 1990s	25,000			25,000
New York Academy of Medicine 2 East 103rd Street New York, New York 10029				
Project to strengthen biomedical research and development in New York City	92,000		46,000	46,000
New York Regional Association of Grantmakers 505 Eighth Avenue New York, New York 10018				
1991 membership support	7,125		7,125	
New York University New York, New York 10003				
Research on the developmental pathways of high-risk adolescents — $400,000 (1987)		50,000	50,000	
	25,000		25,000	
Research and training on news media coverage of international security issues — $350,000 (1990)		262,500	175,000	87,500
Nigeria, University of Nsukka, Nigeria				
Research on maternal mortality in Nigeria — $165,000 (1990)		82,500	82,500	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Nigerian Institute of Social and Economic Research P.M.B. 5, U.I. Post Office Ibadan, Nigeria				
West Africa Technology Policy Research Network — $161,400 (1989)		55,678	53,800	1,878
Research on technology and poverty among women in rural Nigeria	11,000			11,000
Research on the impact of irrigation technology on women in rural Nigeria	14,200			14,200
Nonprofit Coordinating Committee of New York 121 Avenue of the Americas New York, New York 10013				
1991 membership support	975		975	
North Carolina, University of, Chapel Hill Chapel Hill, North Carolina 27514				
Expansion of a precollege program in mathematics and science for minorities and girls — $350,000 (1989)		145,000	145,000	
Preparation and dissemination of a report on young adolescents	23,000		23,000	
Nuclear Control Institute 1000 Connecticut Avenue, N.W. Washington, D.C. 20036				
Research and public education on nuclear proliferation — $200,000 (1989)		50,000	50,000	
Research and public education on nuclear nonproliferation	300,000		75,000	225,000
Nuclear Times 401 Commonwealth Avenue Boston, Massachusetts 02215				
Coverage of research and analysis on the avoidance of nuclear war — $330,000 (1989)		110,000	110,000	
Nursing and Midwifery Council of Nigeria Six Airport Road, P.M.B. 21194 Ikeja, Lagos, Nigeria				
Planning continuing education courses for nurse-midwives	25,000			25,000
Obafemi Awolowo University Ile-Ife, Nigeria				
Study of self-medication by market women in Oyo State, Nigeria — $9,800 (1990)		9,800	9,800	
Research on female-owned small enterprises and technology in Nigeria	13,000			13,000
Study of technology and urban women in the informal sector in Nigeria	13,500			13,500

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Organizing Institute 1550 Bryant Street San Francisco, California 94103				
Handbook on organizing	5,000		5,000	
Overseas Development Council 1717 Massachusetts Avenue, N.W. Washington, D.C. 20036				
Research and education on the federal budget for international affairs	25,000		25,000	
Seminars for congressional staff members on international development issues	250,000		125,000	125,000
Pan American Health Organization 525 23rd Street, N.W. Washington, D.C. 20037				
Binational symposium on the health of women, adolescents, and children in the U.S.-Mexico border region	75,000			75,000
Paramedical School, Sierra Leone P.O. Box 50 Bo, Sierra Leone				
Research to reduce maternal mortality in the Bo district of Sierra Leone	152,400		119,394	33,006
Parliamentarians Global Action for Disarmament, Development and World Reform 211 East 43rd Street New York, New York 10017				
Projects to strengthen multilateral security and peacekeeping institutions — $250,000 (1990)		125,000	125,000	
Pennsylvania State University University Park, Pennsylvania 16802				
Research, policy analysis, and programs for young adolescents	493,000		250,000	243,000
Pennsylvania, University of Philadelphia, Pennsylvania 19104				
International conference on literacy and postconference activities	25,000		25,000	
People for the American Way 2000 M Street, N.W. Washington, D.C. 20036				
Project to promote civic participation among youth — $350,000 (1990)		250,000	175,000	75,000
Pittsburgh Public Schools 341 South Bellefield Avenue Pittsburgh, Pennsylvania 15213				
Model program to improve science education in the schools	106,800		68,000	38,800

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Police Executive Research Forum 2300 M Street, N.W. Washington, D.C. 20037				
National conference on racial and cross-cultural conflict for law enforcement executives — $25,000 (1990)		25,000	25,000	
Population Reference Bureau 1875 Connecticut Avenue, N.W. Washington, D.C. 20009				
Manual on the technical aspects of redistricting	25,000		25,000	
Prichard Committee for Academic Excellence P.O. Box 1658 Lexington, Kentucky 40592				
Overseeing implementation of the Kentucky Education Reform Act of 1990	249,200		124,480	124,720
Princeton University Princeton, New Jersey 08544				
Joint U.S.-Soviet journal on scientific analyses relating to arms control, security matters, and global environmental issues — $250,000 (1989)		125,000	125,000	
Research on the feasibility of reducing U.S. and Soviet reliance on nuclear weapons — $200,000 (1989)		100,000	100,000	
Visiting scholar from South Africa	21,500		21,500	
Public/Private Ventures 399 Market Street Philadelphia, Pennsylvania 19106				
Demonstration of intergenerational mentoring programs	344,000		193,000	151,000
Public Service Consortium 1825 K Street, N.W. Washington, D.C. 20006				
Support	25,000		25,000	
Puerto Rican Legal Defense and Education Fund 99 Hudson Street New York, New York 10013				
Education Rights Project	450,000		133,000	317,000
Quality Education for Minorities Network 1818 N Street, N.W. Washington, D.C. 20036				
Support	700,000		700,000	
Quality Education Project 2110 Scott Street San Francisco, California 94115				
Resource manual on parent participation for use in middle grades	45,000		45,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Radcliffe College 10 Garden Street Cambridge, Massachusetts 02138				
Fellowships at the Mary Ingraham Bunting Institute for women from developing countries	275,000		174,000	101,000
Rochester, University of 601 Elmwood Avenue Rochester, New York 14627				
Study of the effectiveness of nurse home-visiting programs for low-income mothers and infants	330,000		41,500	288,500
Sachs, Jeffrey D., & Associates 555 Thirteenth Street Washington, D.C. 20004				
Project on the economic transition in Poland — $25,000 (1990)		25,000	25,000	
San Francisco Education Fund 31 Geary Street San Francisco, California 94108				
Model program to improve science education in the San Francisco public schools — $150,000 (1990)		21,929	21,929	
San Francisco Foundation 685 Market Street San Francisco, California 94105				
Research and writing on drug addiction by Avram Goldstein	25,000		25,000	
Science and Technology, University of University Post Office Kumasi, Ghana				
Research on maternal mortality in rural Ghana	165,000			165,000
Research on the barriers to technological innovation in food oil processing among women in Ghana	12,100		12,100	
Science Museum of Connecticut 950 Trout Brook Drive West Hartford, Connecticut 06119				
Program of elementary and secondary mathematics and science enrichment for minority students in Connecticut — $300,000 (1988)		25,000	25,000	
Scientists' Institute for Public Information 355 Lexington Avenue New York, New York 10017				
National Security Program — $500,000 (1989)		125,000	125,000	
	500,000		125,000	375,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Conference for experts and the media on new national security issues — $185,000 (1990)		75,000	75,000	
Media education projects on adolescent development and on minority children's health — $400,000 (1990)		200,000	100,000	100,000
Science videotape referral service for television journalists	250,000		250,000	
Sex Information and Education Council of the United States 130 West 42nd Street New York, New York 10036				
Project to develop and disseminate national guidelines for sexuality education for children and adolescents	25,000		25,000	
Sierra Leone, University of Freetown, Sierra Leone				
Developing a national science and technology information system	25,000		25,000	
Research on technological innovation in fish processing by women in Sierra Leone	18,200			18,200
Research on the effectiveness of agricultural research and extension in Sierra Leone	19,000		19,000	
Social Science Research Council 605 Third Avenue New York, New York 10158				
Workshop for young scholars on Soviet domestic politics — $199,500 (1989)	100,000	99,500	99,500	100,000
South Centre Ch. du Champ-d'Anier 17, Case Postale 228 1211 Geneva 19, Switzerland				
Dissemination in Africa and the United States of the recommendations of the South Commission	160,000		110,000	50,000
Southeastern Consortium for Minorities in Engineering Georgia Institute of Technology Atlanta, Georgia 30332				
Program in engineering, science, and mathematics at predominantly minority secondary schools — $652,000 (1989)		126,800	126,800	
Southern Africa Information Foundation 361 West Broadway New York, New York 10013				
Television segment and educational video on women's leadership and development in South Africa	24,800		24,800	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Southern California, University of Los Angeles, California 90089				
Series of policy papers on finance issues and education reform — $272,300 (1990)		139,500	139,500	
Fellowships on U.S.-Mexico border health and environmental issues at the Center for International Journalism	99,000		99,000	
Workshop on international security studies	4,000		4,000	
Southern Growth Policies Board 5001 South Miami Boulevard, P.O. Box 12293 Research Triangle Park, North Carolina 27709				
Working meeting on improving math and science education in the South	25,000		25,000	
Southern Regional Council 134 Peachtree Street, N.W. Atlanta, Georgia 30303				
Redistricting project to provide technical assistance to minority elected officials and communities	350,000		175,000	175,000
Technical assistance to minorities in non-southern states on redistricting	50,000		50,000	
Southport Institute for Policy Analysis 820 First Street, N.E. Washington, D.C. 20002				
Support — $200,000 (1990)		100,000	100,000	
Southwest Voter Registration Education Project 403 East Commerce San Antonio, Texas 78205				
Project to increase Hispanic communities' participation in the redistricting process following the 1990 census	75,000		75,000	
Southwest Voter Research Institute 403 East Commerce San Antonio, Texas 78205				
Educational program for U.S. Hispanic leaders on the proposed North American Free Trade Agreement	25,000		25,000	
Stanford University Stanford, California 94305				
Research and meetings on security in the Asian-Pacific region — $295,000 (1989)		200,000	95,000	105,000
Project to strengthen collaborative activities in science and mathematics among universities, public schools, and industry — $260,700 (1990)		134,400	134,400	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Research and training in international security and arms control — $1,350,000 (1990)		1,023,350	675,000	348,350
Development of a curriculum in human biology for the middle grades and teacher training materials	570,000		282,000	288,000
National long-range plan for research on sleep disorders by the National Commission on Sleep Disorders Research	25,000		25,000	
Project on effective teaching for heterogeneous middle grade classes	435,000		145,000	290,000
Project on security in the new Europe	250,000		62,500	187,500
Project to improve the development, selection, and use of school textbooks in California	159,650		159,650	
Research and writing by Eleanor Maccoby on gender and relationships	25,000		25,000	
Study of Soviet and American approaches to conversion of defense industries	180,000		180,000	
Symposium on ethnicity, equity, and the environment	50,000		50,000	
Stimson, Henry L., Center 1350 Connecticut Avenue, N.W. Washington, D.C. 20036				
Study of verification of compliance with multilateral arms control agreements — $300,000 (1989)		50,000	50,000	
Review of the roles and missions of the U.S. armed services in the twenty-first century	250,000		150,000	100,000
Swaziland Educational Research Association University of Swaziland P.O. Luyengo, Swaziland				
International symposium on educational research	25,000		25,000	
Swaziland, University of P.O. Luyengo, Swaziland				
Research on farmers' perceptions of technological advancement in rural Swaziland	6,000		6,000	
Tatge/Lasseur Productions 485 Central Park West New York, New York 10025				
Television documentary on the phenomenon of hatred	25,000		25,000	
Teach for America P.O. Box 5114 New York, New York 10185				
Support	300,000		300,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Temple University Berks & Park Mall Philadelphia, Pennsylvania 19122				
Program to recruit and educate urban school teachers	317,000		55,000	262,000
Texas A&M University College Station, Texas 77843				
National project to improve teacher education	222,300		139,300	83,000
Texas, University of, Austin Austin, Texas 78713				
International conference on the impact on labor of the proposed North American Free Trade Area	23,760		23,760	
Texas, University of, San Antonio San Antonio, Texas 78285				
Model program to improve science education in the public schools	150,000		51,000	99,000
TransAfrica Forum 545 Eighth Street, S.E. Washington, D.C. 20003				
Support	200,000		100,000	100,000
Triangle Coalition for Science and Technology Education 5112 Berwyn Road College Park, Maryland 20740				
Support — $325,000 (1990)		166,000	166,000	
21st Century Commission on African American Males 3704 Huntington Street, N.W. Washington, D.C. 20015				
National conference on young black males	25,000		25,000	
Support	25,000		25,000	
21st Century Foundation c/o Johns Hopkins University Baltimore, Maryland 21210				
Administrative costs of establishing its offices — $25,000 (1990)		25,000	25,000	
Uganda, Ministry of Health Kampala, Uganda				
Studies on health care financing and efficiency in Uganda — $150,000 (1988)		65,000		65,000
United Nations Association of the United States of America 485 Fifth Avenue New York, New York 10017				
Project on U.S.-Soviet policy dialogue on the United Nations — $300,000 (1989)		100,000	100,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
United Nations Economic Commission for Africa P.O. Box 3001 Addis Ababa, Ethiopia				
Evaluation of institutions for science and technology policy in Africa — $176,500 (1989)		73,400	73,400	
Urban Institute 2100 M Street, N.W. Washington, D.C. 20037				
Public policy project to promote the well-being of children	269,000		269,000	
Usmanu Danfodiyo University Sokoto, Nigeria				
Institution-strengthening — $20,000 (1990)		2,372	281 2,091[a]	
Villanova University Villanova, Pennsylvania 19085				
Joint U.S.-Soviet project on the legislative processes of the Soviet Union and the United States — $301,500 (1990)		200,000	100,000	100,000
Wellesley College Wellesley, Massachusetts 02181				
Revision of School-Age Child Care: An Action Manual	21,000		21,000	
West Indies, University of the Mona, Kingston 7 Jamaica				
Health activities of the Women and Development Unit — $150,000 (1990)		45,500	45,500	
WGBH Educational Foundation 125 Western Avenue Boston, Massachusetts 02134				
Production of a television series about molecular biology and accompanying educational materials and outreach — $400,000 (1989)		350,000	175,000	175,000
Educational television series and course on Latin America and the Caribbean — $400,000 (1990)		400,000	200,000	200,000
Production, promotion, and educational outreach for the fourth season of a television series for young adolescents — $400,000 (1990)		200,000	200,000	
Television series on the competitiveness of U.S. manufacturing in the global marketplace	185,000		185,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Wheelock College 200 The Riverway Boston, Massachusetts 02215				
Center for Career Development in Early Care and Education	300,000		150,000	150,000
Wilson, Woodrow, National Fellowship Foundation 330 Alexander Street Princeton, New Jersey 08542				
Institutes in mathematics and science for teachers at predominantly minority middle and secondary schools — $100,000 (1990)		50,000	50,000	
Wisconsin, University of, Madison Madison, Wisconsin 53706				
Research, writing, and advocacy on enforcement of nuclear export controls — $150,000 (1990)		75,000	75,000	
Women and Foundations/Corporate Philanthropy 322 Eighth Avenue New York, New York 10001				
1992 "Far from Done" report on philanthropy and women's issues	25,000		25,000	
Women's International Public Health Network 7100 Oak Forest Lane Bethesda, Maryland 20817				
Special newsletter issue about maternal health	19,200		19,200	
World Health Organization Avenue Appia 1211 Geneva 27, Switzerland				
Research and training on biobehavioral science and mental health in developing countries — $671,000 (1986)		40,000	40,000	
Monitoring and evaluation of functional literacy programs for women in Zambia, Zimbabwe, Ghana, and Nigeria	323,000		323,000	
Planning an international meeting on healthy adolescent development	9,500		9,500	
Program to reduce the health risk of childbearing in sub-Saharan Africa and the Caribbean	250,000		125,000	125,000
Research and training on biobehavioral sciences and mental health	250,000			250,000
Worldwide Documentaries 84 Edgerton Street Rochester, New York 14607				
Documentary on political changes in South Africa	50,000		50,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Yale University New Haven, Connecticut 06520				
Model school improvement programs in middle schools in New Haven — $487,000 (1988)		87,500	87,500	
Fellowships for educationally disadvantaged South Africans in the Southern African Research Program — $105,000 (1990)		35,000	35,000	
Seminars in mathematics and science for public school teachers in the Yale-New Haven Teachers Institute and for technical assistance to other universities seeking to develop collaborations — $285,000 (1990)		98,000	98,000	
Study of collaboration in early childhood care and education — $171,700 (1990)		85,850	85,850	
Research and writing by Lorraine Klerman on children and youth issues	64,000		32,000	32,000
Young Women's Christian Association of the U.S.A., National Board (YWCA) 726 Broadway New York, New York 10003				
Collaboration between the YWCA of the U.S.A. and Girls Incorporated to serve girls	300,000		50,000	250,000
Zambia, University of Lusaka, Zambia				
Review of the technological capabilities of the health sciences libraries in Zambia	7,500			7,500
Zimbabwe Institute of Development Studies Harare, Zimbabwe				
Study of the impact of technology transfer on agriculture in Zimbabwe	16,000			16,000
Zimbabwe, University of Harare, Zimbabwe				
Desktop publishing system for the faculty of science — $25,000 (1990)		25,000	14,943	10,057
Improvement of the health information system of the medical library — $24,000 (1988)		4,172		4,172[b]
	80,000		71,250	8,750
Total	$40,938,570	$21,392,542	$38,479,356	$23,851,756
Studies and projects administered by the officers				
Carnegie Commission on Reducing the Nuclear Danger	201,155		201,155	
Carnegie Commission on Science, Technology, and Government	2,334,672		2,334,672	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Carnegie Council on Adolescent Development	1,063,556		1,063,556	
Middle Grade School State Policy Initiative	385,139		385,139	
Telecommunication costs associated with a U.S.-Soviet project on the educational uses of computers in the early elementary school grades — $25,000 (1990)		4,740	4,332	408
	25,000		20,025	4,975
For a book on policies towards drug abuse — $150,000 (1989)		67,050	52,500	14,550
For a study of adolescent health to be conducted in cooperation with the Office of Technology Assessment, U.S. Congress — $275,000 (1988)		4,276	1,099	3,177
— $16,200 (1989)		16,200		16,200
For dissemination in the U.S. of the outcomes of the Second Carnegie Inquiry into Poverty and Development in Southern Africa — $16,000 (1989)		16,000	9,477	6,523
For dissemination of the Second Carnegie Inquiry and miscellaneous expense — $156,437 (1989)		9,457	582[a]	8,875
For dissemination of the report, Within Our Reach: Breaking the Cycle of Disadvantage, *by Lisbeth B. Schorr and Daniel Schorr — $5,000 (1988)*		5,000		5,000
Total	$4,009,522	$ 122,723	$4,072,537	$ 59,708

[a] *Cancelled: included in total payments.*
[b] *This represents the remaining amount due grantee for funds initially paid in full but returned to the Corporation.*

Adjustments of grant appropriations

Not required: cancelled (listed above)		$ 72,673
Refunds from grants or allocations made in prior years		
1973–74	Carnegie Council on Children	$ 64
1976–77	Carnegie Council on Children	355
1982–83	American Association for Higher Education	1,338
1984–85	Dan Dimancescu and James Botkin	21
1985–86	Aging Society Project	471
1985–86	Brookline Public Schools	5,875
1985–86	Yale University	269
1986–87	Harvard University	140
1986–87	National Academy of Sciences	7,669
1986–87	Stanford University	861
1987–88	Cornell University	95,454
1987–88	Harvard University	19,476
1987–88	International Council of Nurses	40,444
1987–88	Stanford University	126
1988–89	American College of Obstetricians	3,712
1988–89	Institute of International Education	103
1988–89	National Governors' Association	546
1989–90	Brookings Institution	58
1989–90	Johns Hopkins University	27,101
1989–90	National Governors' Association	6,698
1989–90	Stanford University	12,559
1990–91	Johns Hopkins University	77
		$223,417

Report of the Secretary

During the year, the board of trustees held regular meetings on October 25, 1990, and on January 10, April 10-11, and June 13, 1991. The April meeting was devoted to a review of the Corporation's programs. At the January meeting, the annual meeting of the trustees and members of the Corporation, Richard B. Fisher and Fred M. Hechinger concluded their terms as trustees. Mr. Fisher was elected to the board in February 1983 and served as chairman of the finance and administration committee through his entire term as trustee. He also served on that committee's audit subcommittee. Mr. Hechinger was elected to the board in December 1984 and was elected vice chairman in December 1987. He served on the nominating committee from June 1985 and as its chairman from December 1987. His association with the Corporation has continued with his appointment in February 1991 as senior advisor, providing expertise and counsel to the Education and Healthy Development of Children and Youth program. He recently completed a book on adolescent health, *Fateful Choices*, which will be published in spring 1992.

Also at the January meeting, Warren Christopher was reelected chairman of the board. Sheila E. Widnall succeeded Mr. Hechinger as vice chairman. Newton N. Minow was reelected to a four-year trustee term and John C. Whitehead to a term concluding in January 1993.

Thomas H. Kean was elected to a four-year term as trustee beginning at the end of the January 1991 meeting, filling one of two scheduled vacancies. Governor Kean holds a bachelor's degree from Princeton University and a master's in education from Teachers College, Columbia University. He taught high school history before winning a seat in the New Jersey State Assembly in 1967. He was elected governor of New Jersey in 1982 and served two consecutive terms. He is now the president of Drew University in Madison, New Jersey, serves on a number of boards, and chairs the Advisory Commission on Regulatory Barriers to Affordable Housing of the U.S. Department of Housing and Urban Development.

Five members of the board are elected annually to serve on the finance and administration committee, along with the chairman and the president, who serve *ex officio*. With Mr. Fisher's retirement from the board, Robert E. Rubin was elected chairman of the committee. The other members were Richard I. Beattie, Ray Marshall, Laurence A. Tisch, and Mr. Whitehead. The committee met on November 28, 1990, and on January 9, April 10, and June 12, 1991.

The nominating committee met on October 25, 1990, and on January 10, April 11, and June 13, 1991. Dr. Widnall succeeded Mr. Hechinger as chairman of the committee at the January meeting. Other members were Mr. Christopher, Eugene H. Cota-Robles, David A. Hamburg, Joshua Lederberg, and Thomas A. Troyer.

The agenda committee has been an *ad hoc* committee of the board since 1981.

With the exception of April, during which no meeting was held, the committee's schedule matched that of the full board. Members of the committee are appointed by the chairman of the board, who, with the president, serves *ex officio*. Mr. Christopher reappointed James Lowell Gibbs, Jr., for a term through his retirement from the board in January 1992 and appointed Governor Kean for a three-year term succeeding Dr. Widnall. Mr. Minow is also a member of the committee.

The Corporation has been conducting three major multiyear projects that are directly administered by its officers: the Carnegie Council on Adolescent Development, the Carnegie Commission on Science, Technology, and Government, and the Middle Grade School State Policy Initiative. The activities of each project in the last year are described in further detail elsewhere in this report.

The Corporation also undertook a new eighteen-month project with the appointment in January 1991 of the Carnegie Commission on Reducing the Nuclear Danger. Three respected specialists make up the commission: The chairman is McGeorge Bundy, professor emeritus of history at New York University and former president of the Ford Foundation. He is the author of *Danger and Survival*, a history of the nuclear arms race. As a special assistant for national security in the Kennedy and Johnson administrations, he helped to manage the Cuban missile and Berlin crises. Sidney D. Drell of Stanford University is a professor of physics and deputy director of the Stanford Linear Accelerator Center. He recently participated in a study of nuclear weapons safety commissioned by the House Armed Services Committee. Admiral William J. Crowe, Jr., was chairman of the Joint Chiefs of Staff from 1985 to 1989 and is now University Professor of Geopolitics at the University of Oklahoma. Working with other consultants and drawing on the activities of Corporation-funded programs at Harvard University, Stanford University, the Brookings Institution, and the Massachusetts Institute of Technology, the commission members are studying the nuclear danger in the twenty-first century.

E. Alden Dunham retired from the Corporation in September 1991. From 1966, when he joined the Corporation, through 1982, he was the program officer responsible for grants in higher education and designed and worked with a number of major Corporation projects, including the Carnegie Commission on Higher Education. From 1983 to 1990 he was chairman of the Education: Science, Technology, and the Economy program and helped to initiate the Carnegie Forum on Education and the Economy. He took a sabbatical in 1990 to pursue research on technology in education, a subject on which he continues to advise the Corporation.

Bernard L. Charles retired in September 1990 after twelve years at the Corporation. As program officer since 1978 and senior program officer since October 1989, he was responsible for many grants seeking to improve the education of minorities generally, and in particular in mathematics, science, and technology. He has continued these interests in his new position as executive vice president of the Quality Education for Minorities Network in Washington, D.C., a project he was instrumental in shaping while at the Corporation.

In October 1990 Rodney W. Nichols was appointed scholar-in-residence. A physicist, he had been the executive vice president of the Rockefeller University since 1978, having served earlier as assistant to the president from 1970 to 1972 and as

vice president from 1972 to 1978. From 1966 to 1970, he was special assistant for research and technology in the office of the U.S. secretary of defense. He has served as advisor and consultant on national science and technology policy to a number of public and private organizations. His work at the Corporation has been principally devoted to the Carnegie Commission on Science, Technology, and Government, of which he is a member of the advisory council, executive committee, and several task forces, including those devoted to science in international affairs, national security, developing countries, long-range goals, and personnel.

Other staff appointments and title changes are reflected in the administration list elsewhere in this annual report.

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The Carnegie philanthropies

Andrew Carnegie was born in Scotland in 1835. He came to the United States with his family in 1848 and went to work as a bobbin boy in a cotton mill. After a succession of jobs with Western Union and the Pennsylvania Railroad, he eventually resigned to establish his own business enterprises and, finally, the Carnegie Steel Company, which launched the huge steel industry in Pittsburgh. At the age of sixty-five he sold the company and devoted the rest of his life to writing, including his autobiography, and to philanthropic activities, intending to give away $300 million. He gave away over $350 million.

Gifts to hundreds of communities in the English-speaking world helped to make his idea of the free public library as the people's university a reality. In all, 2,509 libraries were built with Carnegie funds. His endowment of the Carnegie Institute in Pittsburgh brought important educational and cultural benefits to the community in which he made his fortune. From experience he knew the importance of science applied to commerce and industry, and he provided for technical training through the Carnegie Institute of Technology. By establishing the Carnegie Institution of Washington he helped to stimulate the growth of knowledge through providing facilities for basic research in science.

Mr. Carnegie set up the Carnegie Trust for the Universities of Scotland to assist needy students and to promote research in science, medicine, and the humanities. For the betterment of social conditions in his native town of Dunfermline, Scotland, he set up the Carnegie Dunfermline Trust. To improve the well-being of the people of Great Britain and Ireland, he established the Carnegie United Kingdom Trust.

In the United States, he created The Carnegie Foundation for the Advancement of Teaching primarily as a pension fund for college teachers and also to promote the cause of higher education. To work for the abolition of war, he established the Carnegie Endowment for International Peace. To recognize heroism in the peaceful walks of life as being as worthy as valor in battle, he created funds in the United States, the United Kingdom, and nine European countries to make awards for acts of heroism. In contributing to the construction of the Peace Palace at The Hague, the Pan American Union Building in Washington, and the Central American Court of Justice in Costa Rica, he further expressed his belief in arbitration and conciliation as substitutes for war.

In 1911, having worked steadily at his task of giving away one of the world's great fortunes, Mr. Carnegie created Carnegie Corporation of New York, a separate foundation as large as all his other trusts combined.

Each of the Carnegie agencies has its own funds and trustees and each is independently managed.